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TEARLE CULENDIAVAMINOR

THIRD]

TO IMPROVE THE SOIL AND THE MIND.

[SERIES.

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TERMS—SIXTY CENTS PER YEAR.—Ten copies of The Cultivator and Ten of the Annual Register of Rural Affairs, with one of each free to the Agent, Six Dollars.

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Journal of 16 quarto pages, making two volumes yearly of 416
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The Cultivator & Country Gentleman.

Shade Trees in Streets and Highways.

The Legislature of the State of New-York, at its last session, passed an act regulating the planting of shade trees in the streets and highways of the State, except in incorporated villages and cities; in these, such regulation is subject to the municipal laws of the same. The act embraces but two short sections, binding no man to plant trees, but presupposes a desire on the part of the people to do so, and establishes a uniform rule by which it must be done. A general adoption of the system would contribute greatly to the beauty of the country, and to the health and comfort of the people. In many of the older portions of the State the native forest trees have chiefly disappeared, and a degree of nakedness appears. It is true that under the spirit of improvement that has prevailed for some years past, many fruit and ornamental trees have been planted around the dwellings of the inhabitants; but nothing could add more to the improvement of the aspect of the country than the general adoption of a system of tree planting in the public highways throughout the State. The beauty and comfort that would be afforded by these trees after a few years, can hardly now be conceived. They would also contribute much to the public health. That beautiful law of compensation established by the Creator, between the animal and the vegetable kingdoms should not be lost sight of. Trees as well as men and animals breathe, but they do not appropriate from the atmosphere precisely the same elements, but rather the opposite. In the process of respiration the animal organism appropriates the oxygen of the atmosphere, and exhales carbonic acid gas, while the trees, through their leaves, give off the oxygen and appropriate the carbonic acid; the carbon thus obtained goes to build up the tissues of the tree; thus an equilibrium is maintained between animal and vegetable life, which is essential to the health of mankind. In populous cities and neighborhoods this equilibrium is in some degree destroyed, and is one of the causes of the mortality which prevails in such districts, and is not the least among the considerations which should encourage the planting of trees in the streets and highways in every settled country. Then what could be more beautiful than long avenues of thrifty trees extending through every highway, and besides the grateful and cooling shade they would cast upon the traveler in summer, as well as the protection they would afford to everything living in breaking the force of the bleak winds of winter.

It is a common adage, that what is everybody's business is nobody's. Few individuals at first will think that they have any special interest in such an enterprise, but this will be found, on investigation, to be a. mistaken idea. If every man in the State would plant a line of trees bounding his premises along the highway, it would add many times the cost of such planting to the permanent value of his property, to say nothing of the benefits he would derive individually from them while living, and when the period of maturity of the trees arrives, and approaching decay requires their removal, the owner of the property along their line would be entitled to them, and as fuel they would again pay many times their cost. The subject, fairly viewed in all its various aspects, can hardly fail to convince any land-holder that he can make no better investment, in a small way, than to line his premises along the highway with a row of beautiful trees, well planted and well cared for until they shall become so well established as to require no further special attention. In the old countries of Europe tree culture has become an important branch on many of the public lands and private estates. Under the present law, authorizing every land proprietor to plant in the public highways, the land occupied by the trees costs him nothing, while in the end he, or his successors, will be entitled to the product, besides the public and the private benefit derived during the existence of the trees. In order to enlist public attention, and to get this enterprise under way, it requires concert of action. Let the subject be brought up in town meetings, village meetings, and by farmers' clubs; or let public meetings be called specially for the purpose at a season when the land-owners in the neighborhood have the most leisure to meet and discuss the merits of the subject, and to establish some rule of action.

In many sections of the country trees from the forest may be found suitable, though these are not always

in the nursery, yet if care be taken to select them from the most open and exposed parts of the woods, and the removal and transplanting be properly done, they may generally be expected to live. Every forest will afford several different kinds suitable for the purpose, and each variety may occupy a considerable section along the road. An interchange of varieties among the land-holders of the neighborhood will enable this to be done with considerable order and regularity. For instance, A. has a preponderance of maples, and B. of elms. By making an exchange of these, or of any other kinds, one farmer with another, a considerable stretch of a single kind may be planted together, when another kind may set in. In some sections nursery grown trees may be obtained to advantage. In some nurseries there is an overstock of overgrown trees, which the proprietors would gladly sell on moderate terms for public planting. Among these may be found the different varieties of elms, native and foreign; of maples, including the European or Sycamore maple, a beautiful tree of rapid growth; the European Linden, and many others.

Many varieties may be easily grown by the farmers themselves where circumstances do not favor obtaining them immediately otherwise. Among these may be named the horse chestnut, the common or native chestnut, one of the most beautiful trees when grown from the seed; the honey locust, the common locust, and others that might be named. In many sections of the country thousands of young seedling elms, maples, beeches, white wood or tulip tree, together with many other kinds, may be collected in the woods and along the fences, where the seeds have blown and taken root. These in the spring, when about two inches high may be safely transplanted to the nursery by taking them up with a trowel, with a little earth attached to them. These, if well cared for, will grow rapidly in the nursery, and in a short time be ready for transplanting.

In the absence of better kinds, there is another tree that is attracting considerable attention now at the West, that is readily propagated by cuttings, and grows very rapidly. It is not the most desirable kind, yet it may be grown with greater ease, and brought to the proper size for transplanting, in less time than almost any other tree. It is known as the white willow, and is now largely grown under the impression that it is to make a suitable hedge or fencing tree. Some kinds of fruit trees would also be suitable for this purpose; for instance the Mazzard cherry, and some of its improved varieties. These grow rapidly, and attain a good size, and are symmetrical in form. These are readily grown from seed, or they may be bought at the nurseries while small at a very low price; and probably in some parts of the State they may be found in abundance in the forests. In a township comprising an island, within five miles of where I now write, the woods are filled with these trees from seedlings of a single year to trees twelve inches or more in diameter. These were produced from twelve trees originally imported from England near a century and a half ago, and during this long period the birds have been scattering the seeds, and when they fall in the woods they readily vegetate, until now they comprise the largest variety in the forest. Many of these have years since been removed for planting in by you.

transplanted so successfully as trees are that are grown the streets and in private grounds in the surrounding the nursery yet if care be taken to select them from country.

In some parts of Germany, planting fruit trees in the streets and public highways has become an established system, and take the preference of other trees. Such fruit as the proprietor against whose land the trees stand, does not want for his own use, is free to the public. But any tree, the fruit of which the proprietor desires for himself, he has only to put the well known mark upon it, and no one among the thousands of passers-by is found base enough to violate this sacred right; affording a lesson of morals that we Americans would do well to profit by.

So important has the subject of planting trees in the public highways been regarded by certain enterprising individuals in some sections of the country, that they have offered and paid liberal rewards to such persons as would plant a certain number of trees in the highway. And in other instances premiums have been offered to those who would plant the largest number in a given time. In other neighborhoods tree planting associations have been formed and a regular system of planting has been adopted, and the work nobly begun. It only requires that the subject be generally agitated and led by a few public spirited men to give it a start. No one should feel that he is making any sacrifice however much labor he may bestow in this way; he will be many times compensated for all the cost and labor thus incurred in the various forms, besides the investment will add a percentage to every acre of his farm; while posterity, and the public at large will ever hold his name in grateful remembrance through com-

It is to be hoped that this work will be begun and prosecuted with energy in every part of the State. Let some of the friends of the enterprise move in the matter, and call public meetings, and prepare to make a beginning at the approaching leisure season.

WHITE PINE ON POOR LANDS.

In your last paper is an article on the usefulness of the White or Weymouth Pine, for growing on poor soils. On our almost poor sands by the lake shore it fully sustains all that was said of it. With anything like care in planting, and an occasional top-dressing of manure in the winter, no tree of the evergreen class does better. It should, however, be transplanted small, or have been frequently transplanted beforehand; otherwise it is a long time in establishing itself, as the roots of this, like some others of the conifera, are not very fibrous. The nature of nearly all this tribe is to send roots out in every direction, and very near the surface; here they are enabled to feed on what little good soil there is, besides having all the benefits of the annual dressing of their own leaves that fall and decay.

Many undoubtedly err in planting evergreens too deep, especially in shallow, poor soils. Better plant as near the surface as possible, and protect them from drouth the first summer by a mulch. This is far better than watering for newly planted trees, and, except in extraordinary seasons of drouth by mulching, watering at the roots may be dispensed with.

Chicago. Nov. 30, 1863.

The most and the best that is done for you must be done

SORGHUM IN WESTERN NEW-YORK.

ISAAC MEKEEL of Ledyard, Cayuga County, has shown us a specimen of Sorghum Molasses, manufactured by himself the present year, which appears to be quite equal in flavor to the common molasses made at the West, and having less of the peculiar, sweet, cornstalk flavor, which is unpleasant to those not accustomed to its use. He furnished seed to several of his neighbors last spring, procured a good mill from Cincinnati, and used his common sugar-pans for evaporating the juice. The amount of ground occupied by the several little patches of the cane, he cannot accurately estimate-probably between one and two acres; he made 230 gallons. Some of the growers, who were accurate in their measurements, found the product to be at the rate of over 300 gallons per acre; with others it was much less. One cord of wood was nearly sufficient for making 100 gallons-which is at about the same rate as is usually required at the West. With one of Cook's or Neal's Evaporators, which would render the process more perfect and expeditious, a better as well as, cheaper result might doubtless be obtained. By not pressing the stalks very closely, a clearer juice flows out, and a less amount of scum is produced; the skimming must, of course, be continued through the whole process, and as soon as thick enough, the syrup must be rapidly cooled to prevent a burnt flavor.

As the seed does not ripen in this State, it is necessary to procure it from a more southern latitude, as Cincinnati, and the earlier it is planted, so as to have a long season, the better. In the experiment here noticed, some of the neighbors who took the seed for trial, not being aware of the usual slender and feeble appearance of the plants during the first few weeks, pronounced them a humbug or failure, and plowed or dug them up for other crops. The manufacture was continued from the first to the end of October-the juice is not sufficiently matured before the first, and frost would soon destroy it after the end. The best success attended the use of juice from freshly-frozen stalks, which was the last manufactured, and which was hurried through before fermentation could occur. About 20 gallons of molasses were made in a day from 160 gallons of fresh juice.

We commend this successful experiment to the attention of farmers of this latitude, and if any one is willing to incur the expense of a mill and evaporator, costing from \$100 to \$150 for both, he can manufacture what may be grown within two or three miles, at a cost of 25 cents per gallon after the cane is furnished. Mills of a cheaper character may be made, with wooden rollers of hard wood turned in a lathe, and furnished with iron gudgeons and cogs. Such as these have been made at about \$20 each. Good evaporating pans have also been constructed by nailing a long and broad sheet iron to pieces of two inch elm plank, about six inches wide, which form the sides of the pans; the sheet-iron is bent up at each end, and secured by a double row of large headed nails throughout. Pieces of plank extending alternately nearly across the pan, as in Cook's evaporator, produce a zig-zag current as the juice descends from one end to the other, an inclination being given to it just sufficient to give a concentrated syrup by the time it reaches the lower end.

The most expeditious way of removing the leaves from the stalks is to use a common pitch fork for that purpose, striking the tines downward against the leaves, which are thus torn off and thrown on the ground.

Planting Large and Small Potatoes.

The results of some recent experiments with planting large and small potatoes, performed by the writer, may prove interesting to the readers of the Co. GENT. small potatoes used were in no instance more than an inch and a half long, and would average about the size of small plums. The large ones were from four to ten inches long and would weigh from half a pound to a pound, or more-Both the large and small potatoes were cut so as to leave about the same number of eyes on each piece. Care was taken to plant them when the ground was in a moist condition in order to prevent the drying up of the small pieces. The large and small seed were planted in alternate rows, and after digging the contents of each row were placed in piles at the ends; these piles thus representing alternately the large and small seed, were then closely examined by several persons, and not the slightest difference could be perceived in the size of the potatoes. On being measured, however, the large potatoes were found in every instance, to yield one-fifth more than the smaller. The variety was the Prince Albert. This result was the more striking, as one of the rows planted with extra large seed (single potatoes of which weighed as much as eighty of the small ones,) yielded no larger tubers than the smallest seed. The crop, from all the rows alike, was a good one, and many of the potatoes, even from the smallest seed, were from 8 to 10 inches long. We have tried this experiment but a single year; it is a common opinion that if repeated for several successive years—that is, if small potatoes are selected successively, the crop will ultimately run out. We have no personal knowledge of such a result, and it is worthy of careful experiment. At the same time the series of trials here reported show conclusively that farmers may use small seed for raising the main crop for consumption, so far as the size of the potatoes are concerned, although losing something in amount, and that on any supposition, a small portion of the field should be planted with large potatoes for seed. As potatoes are now high priced, it may be well for farmers to save their small ones for planting and trial; and an hour or two devoted each year to a set of experiments may give them results of considerable practical value. They should, however, bear in mind that small seed are often planted on the poorest portion of the field, while larger selected tubers are given the best chance and the best cultivation,

It would seem that the chief advantage in large seed is in giving an earlier start and stronger growth, resulting in a larger crop—but the experiment must be repeated and varied many times before confident results can be reached.

TWO GOOD MILKERS.

MESSES. EDITORS—In the last no. of THE CULTIVATOR, you refer to a cow owned by Mr. W. A. COMSTOCK, as a large milker, she giving on an average 45 lbs. milk per day for 1971 days

day, for 127½ days.

Now I have two cows. They have been kept on a piece of ground 6 rods less than an acre, (until after feed.) One cow will average 40 lbs. per day continuously; the other has given on an average (I do not say 127½ days, as there was no object in weighing so long,) but for 8 or 10 in succession, 51½ lbs. She has given 32 lbs. at one milking, is 7 years old, bright handsome red, and I think, a cross of Durham and Devon. Will weigh, well fattened, I think, 800 lbs. As I sell my milk I cannot say how much butter could be made from her milk, but the quantity is "A 1."

L. S. Bronson.

Waterbury, Conn., Nov. 17, 1863,

Report of the Commissioner of Agriculture.

"The Report of the Commissioner of Agriculture for the year 1862," was issued a few weeks ago, and an early copy, for which we are indebted to the Department, has since been awaiting notice. It is a volume in all, of 632 pages, illustrated by numerous wood engravings, both as separate plates and in the text.

Such a work may be viewed in different lights by different readers. One who takes up this Report as he would the volumes of this journal, for example, to read a miscellaneous collection of articles on Agricultural and Horticultural topics, or to refer to the opinions of its writers on some particular subject, will find in it a wide variety of interesting matter. The authors from whom articles have been obtained, include some of our leading agricultural writers. In a work of such bulk, we have not, of course, been able to examine all these articles in detail, but it is fair to presume that they have a reasonable degree of trustworthiness, and their subjects are chosen, as far as possible, with a view to questions of interest at the present time.

But if one who is tolerably familiar with the Agricultural publications of the day, whose library contains the Transactions of our Agricultural and Horticultural Societies, together with the common Farm and Fruit treatises within every one's reach, and who reads the periodicals weekly and monthly,—takes up the work before us, hoping to find in it investigations that shall really advance the condition of Agricultural knowledge, he will very likely lay it down with disappointment. There may be hitherto unpublished facts in it, and undoubtedly are, but they are intermingled with so much else that one is unable to find them.

And if the reader is a stranger, apprised for the first time that this book emanates from a branch of the Gene ral Government, and is an official document, in which the commissioner in charge is required to "report his acts to the President and to Congress," and may also "recommend the publication of papers forming parts of, or accompanying his report," he will be sadly puzzled to ascertain what possible connection the volume has with the Government, or what "acts of the commissioner" it reports.

We are aware that these remarks bear upon the fundamental principles involved in the management of the Department, rather than upon the execution of the present "Report," which is merely a continuation, on the same system, of the volumes that have heretofore come to us from the Agricultural branch of the Patent Office, and which certainly compares very favorably with its predecessors. We are not therefore complaining of shortcomings of any kind in the preparation of this particular "Report," but we are questioning the authority and propriety of this system as a whole. We can see no legitimate reason for the preparation of these volumes in their present form, by the Government, nor any intent of the kind-unless on the most liberal of all possible interpretations-in the Act establishing the Department. They bear the same relation to the Department, and it has just as much reason for publishing them, as the Patent Office would have for compiling as large a book of general mechanical information, or the Treasury Bureau similar treatises on the principles or practice of banking and finance.

Let us not be mistaken. The objection we submit as regards these "Reports," is one that is constantly becoming

more widely felt-not as against the publication of any "Report" at all, but that they are not such as a Governmental Department, which is really at work in the interests of Agricultural investigation, in the interests of the farmers, should prepare-either in kind or style. In a series of articles last winter, we showed that there is room enough for the Agricultural Bureau to occupy a place above and beyond the reach of private enterprise in this country at present-in collecting, systematizing, and reducing to the form of a report, everything that bears upon the agriculture of the year under consideration, as well as in accomplishing something itself which shall be worth placing on record-in conducting researches into the agricultural capacities and progress of the country and its different portions, as well as in condensing such accounts of what is done to promote agriculture abroad, as would serve to throw light upon our own present and future practicein fine that its annual volumes should have the definite purpose designed for such documents-only containing the new information actually acquired by the Bureau for the year, whether the same be more or less-instead of an unsystematic collection of just as many odd chapters as the liberality of Congress can be induced to print in a given number of pages.

—— So much in the way of general remark—for we have not the space to discuss the subject here at the length it deserves.

As already stated, the volume for 1862 compares favorably in its kind with those previously issued. The number of articles is between forty and fifty, and among the authors we observe the names of S. L. Goodale on Breeding, Levi Bartlett on Wheat Growing in New Hampshire, L. Bollman of Indiana on the Wheat Plant and Sorghum Culture, Sanford Howard on Kerry Cattle and different breeds of the Horse, Joseph Harris on Stall Feeding Cattle and Sheep, J. J. Thomas on Farm Implements and Machinery, Dr. Hall on the Health of Farmers' Families. Of subjects treated in miscellaneous articles, we may mention the International Exhibition of 1862, Wild Flowers, the Ailanthus Silk Worm, Flour Making, Coal Oil, the Vermont Marbles, Preservation of Food, Agriculture in Morocco, &c. Horticulture embraces articles on the Shelter and Protection of Orchards, Popular Varieties of the Apple and Pear, Climatology of American Grapevines, Geo. W. Campbell on the Grape, &c. About Sheep and cognate subjects, we have a full article on the condition and prospects of Sheep Husbandry, which has been compiled with care, Sheep Husbandry in the West, by an Illinois contributor, Sheep on the Prairies by a writer in Iowa, &c.

Among other articles, we have the Agriculture of Maine, Flax and Flax Cotton, Beef and Beef Cattle of the West, two Poultry articles, a continuation of the Entomological treatise begun in the last volume, Maple Sugar, Flax on Cotton Machinery, Agricultural Statistics, California Agriculture, &c. Short Reports are given from the Chemist and Gardener, and some preliminary remarks of a very general nature from the Chief of the Department himself. Some of the illustrations are well engraved, and others are borrowed from various sources.

PROLIFIC BEAN.—A bean came up last spring in the door yard of Jas. M. Garland, of Hooksett, N. H., and giving evidence of unusual thrift, it was protected and allowed to spread itself at will. 205 pods matured upon it, containing 1218 beans.

PLANTING APPLE ORCHARDS.

So much attention has of late years been given to the delicate fruits, such as pears, grapes, &c., that the planting of apple orchards has in some places been placed in the back-ground. So long as pears bring \$18 to \$20 per barrel in market, and grapes 15 to 25 cents per pound, there seemed hardly sufficient inducement to set out extensive orchards of apple-trees, when the fruit will not average more than one dollar per barrel. This is one view of the question; we propose to present another. Apple-trees are more easy to raise and more rapid of growth, and yield more abundantly than pear-trees. They are less liable to fire-blight, and comparatively little skill is required in selecting and packing them for market. In other words, they are better adapted to a great wholesale business. They require incomparably less cultivation, pruning, pinching, thinning, and training than grapes. The large land-owner may therefore safely plant extensive apple orchards without any fear of difficulty in securing the services of rare and skillful managers.

For the past forty or fifty years, notwithstanding the great numbers of orchards that have come into bearing, the average price of apples has not fallen; and with the present rapid increase of city population, and of consumers generally, it is not probable that the market will be overstocked, except in abundant years, and even then the best cultivators and best packers who have attained a reputation, will sell readily all they have.

Orchards generally have been too much neglectedthey have often been planted on hillsides, stoney lots, and other places where they cannot be properly cultivated; and a large number of those planted on good level land have been entirely neglected. As a consequence, they have grown feebly, and produced small crops with much imperfect and knotty fruit. If cultivated when young, receiving half the attention that farmers usually give their cornfields, the quantity and quality would both be improved, and the profits greatly augmented. By selecting the most productive of the good standard varieties, each tree will certainly yield an average of ten bushels annually, at a moderate estimate; under such good treatment, twenty, thirty, and even forty bushels from each tree are not very unusual in favorable seasons. Forty trees will occupy an acre, and ten bushels from each will be 400 bushels per acre. A twenty-five acre orchard will, at this rate, afford 10,000 bushels-which, at only 25 cents, will be \$2,500-raised with less than one-half the labor that would be expended on a corresponding field of corn, for the only expense would be a moderate cultivation and gathering the crop. To plant these twenty-five acres would require a thousand trees, costing, say \$100 at the highest price, and, after the ground is prepared, set out with no more labor than planting the cornfield. The cultivation of the orchard for several years might be aecompanied with crops of potatoes, beans, carrots, and corn, and would thus detract for the time but very little from the value of the land, until the increasing crops of fruit would afford a better return.

So long as all mankind are fond of good fruit they will supply themselves, if they can at moderate prices; the market will therefore never cease, but if it should the crop will still be eminently valuable to the farmer. Four hundred bushels of apples per acre, without planting or hoeing, are better for feeding domestic animals than 150 bushels of potatoes, or 50 bushels of corn, requiring every

year both planting and hoeing. Large barn cellars may be made for storing apples in quantity, and the surplus, above what is sold, would often be of great use in wintering a large herd. Horses fed during winter exclusively on hay and grain, would be much benefitted and rendered more healthy by a daily supply of fresh apples, which they eat with great avidity. Daily feedings to milch cows, commenced gradually and not overdone, will increase the quantity and richness of the milk. A small quantity fed daily to sheep will improve their condition, and swine may be both fattened and wintered on them in connection with other food.

The conclusion we therefore arrive at, is that farmers should plant freely of productive, well selected varieties, and should especially take good care of them after they are planted.

A Cheap and Convenient Feeding Rack,

EDITORS Co. GENT .- As you request your subscribers to contribute anything they think will benefit the readers of your valuable paper, I send a rough drawing of a cheap feeding rack for cattle, that I used for the purpose last winter and this fall. I have never seen any like them elsewhere. The rack is square, (one side the counterpart of the others,) requiring four posts five feet long and from four to six inches in diameter-sixteen poles five feet long, the ends of which must fit loosely in an inch and a half or two inch auger hole which has been made into the posts, but not through-eight braces pinned diagonally on posts, the holes for which go through the posts so that they may be driven out if required. The poles are put about eight inches apart, making the upper one two feet from the ground, which is plenty high enough, and the braces cross just at the upper pole.

If the cattle get into it, a light strip can be put across near the top. I had one that was nailed, but like this better, as I can take it apart in summer, and it requires but little room to store it.

Rose Hill, Saratoga Co., Nov., 1663. JAMES THOMPSON

OVERSTOCKING WITH BEES.

As your correspondent (Mr. HAZEN I believe,) attributes the failure of bees to gather a sufficient amount of honey to overstocking, I will give a little of my experience on the subject. I have had the past season over fifty hives of bees, more than half of them in movable comb hives-but very few other hives for several miles around, and none less than one mile. The result this fall is, I obtained five boxes of honey, of about five pounds each, and some seven or eight partly filled, and nearly all the young swarms, with less than half honey enough to winter, and quite a number of the old ones not much better; and all but one of the young swarms. were first swarms, and that one was a double swarm. broken up fifteen swarms and put the bees in with other swarms, and three I have destroyed with the match; and yet I have several others that I shall either break up or

Now, can it be owing to overstocking in my case? I think nct. The fact is, after the first of July, we had very wet weather, almost continuously, so that bees could not work—for bees want good hay weather to gather their harvest, as much as the hay maker to secure his hay.

I have another experience, just ten years ago. I had six or seven swarms of bees in the spring, in good condition; we never had the first mouthful of honey, and the next spring had but one swarm of bees, all the rest starved to death. And, by the way, I have that same swarm (or stock) now, and it appears to be as healthy as any stock I have, and ten years old too. The season that year (1853) was very dry. at that time there were not a dozen swarms within three miles of me. North Clarendon, Vt , Nov. 23, 1963. E. L. HOLDEN.

THE CHINA SHEEP.

EDS. Co. GENT.-I was sorry to see you in a recent issue evade an answer asking for information relating to the value of China sheep. If your opinion was that the sheep were not profitable in this country, you would undoubtedly displease present owners by expressing it, but if such is the fact, are they entitled to your forbearance? And would it not do much good to express or state the facts if you were in possession of them?

We in the west have been excited by some statements in the Co. Gent. in regard to these sheep, and would be very glad to hear more about them, particularly any knowledge the Co. GENT. may have.

Ann Arbor, Mich., Nov. 17, 1863. We have heretofore expressed an opinion, based upon the results of trials by one or two persons within our own knowledge, quite adverse to these sheep, as being an addition of any practical value whatever to our farm stock in this country. At the same time we are unable at present to give the details of these trials, and in answer to other inquiries, have requested correspondents to present their experience for the benefit of our readers. These requests as yet have elicited statements on one side only, and that is in favor of the sheep. We have no desire to do them or their owners injustice, but have not for that reason changed our opinion, nor "evaded" an expression of it when called for. The inquiry alluded to by our correspondent particularly, called for "a description of these sheep, their natural habits, &c.," all of which, like many other things inquired about every week, had been very lately printed in our columns. We referred the inquirer simply to the number and pages, to avoid needless repetition.

It should be borne in mind that opinions formed from partial trials may not in all cases prove trustworthy, and while we have no faith ourselves in the China, Tartar, Nankin or Shanghai sheep,-for we believe the same or similar animals have been indiscriminately so called-we have been disposed to permit the full and free discussion of their merits and demerits. For wool, we prefer the Merino, and for mutton, the English breeds according to circumstances of locality, even at the same prices at which the others are offered. But we would not by any means discourage our correspondent from a trial of them, if disposed to make the investment, since they have advocates who are strong and doubtless sincere in their praise.

STANCHIONS FOR COWS.

MESSES. EDITORS-One of your correspondents requested me some time since, to tell how my stanchions were built, and as I have before spoken of their being put up on scientific principles, I will explain what was meant in using that term.

In the first place there is a good plank floor for the cows to lie upon; the floor has a fall of two inches in 41 feet; next, the sill under the cows' necks is just 5 inches high, rounded and smooth on the top where the cows, necks come. I have seen this sill so high, or in other words, the ground worn away so that this sill was full 18 inches high; that I call unscientific and unmerciful. Next, the upright plank are 41 feet high in the clear, made perfectly smooth where the cows hit them, and filled out tight between, except where the stud falls back to get the cows in, so that there is no cracks to get their horns in; the plank are 12 inches thick; the piece that holds them at the top is 2 by 4 studs, one each side the plank, and the grain, and not be jostled and run over by the sheep.

bolted together. The stalls are 3 feet apart, the mangers 18 inches wide at bottom and slant back up to the barn floor, and the hay slides down on this slant; the mangers are meal-tight, and divided off between each one up to the floor, with a hole cut through each one high as the cow holds her head while standing, so that each cow can see her neighbor, and stand quiet with no fear from strangers; the stud that holds the cow in, is fastened with a wooden spring on the back side, about 21 feet long, made fast to the top of one of the horizontal studs. The top of the upright stud should be sawed off about three inches above this spring, so that it can be opened with one hand, the thumb on the spring. The spaces for the cows' necks are 8 inches for the larger ones, and 7 inches for the smaller ones, and open 17 inches at the top.

The drop or gutter, back of the cows, is 15 inches wide and 8 deep, a square stick each side and plank in the bottom. This gutter should not be over 41 feet from the stanchion; some have them 5 feet at one end and 4 feet at the other, putting up the largest first and tapering down to the heifers. L. F. SCOTT.

MANAGEMENT OF SHEEP IN WINTER.

The different ideas on the manner that sheep should be treated in winter are almost as numerous as flock-masters. As a wool grower I would say a few words on the management and treatment of sheep in winter.

As soon as your flocks fail to improve in the meadows or pastures in the fall, then commence feeding. Do not wait for snow to feed your sheep; neither let them run, even if they are "holding their own," and not improving. To have a sheep come out well in the spring, it is necessary that they are improving in the fall or commencement of winter. As a sheep is doing in the fall, just so they will do all winter. If they go into the yard in the fall improving, they will continue so all winter, and vice versa. I begin to feed grain to my sheep now once a day-say half a pint each daily, and that in the morning. When I get up in the morning and find it cool and raining a little I take a few cornstalks and throw into their racks, and leave them after they are fed their grain until noon, unless the rain is over and the air is dry. If so, I let them out. When it rains all day I feed grain and cornstalks in the morning; hay, with a few pumpkins, at noon, and a very little grain with hay at night. I have water in the sheep barn so they can drink any time when they want it. This latter arrangement is of no small consequence in winter when sheep want to drink every hour, and only a swallow or two at a drink. If sheep have to go out in the weather on stormy days for their water, they will wait just as long as they can stand it, and then go out and drink so much that they will stand all humped up for half an hour with the cold.

It is very essential that you have good racks for your sheep-almost as much consequence as the feed. I use one that is very convenient. It is made with three scantling for the corners, two boards nailed on about ten inches or a foot apart, clear around, then three inch slats of inch stuff put on up and down, about six inches apart. In fact very much like the one in your last paper, only I have the grain trough inside the rack, and consider it quite as important to have the trough fixed in such a manner that the sheep cannot crowd each other as in feeding hay in racks. Another thing, I can get into my rack and feed Frequently you have your grain upset while pouring it into the trough in the other way. I feed corn unground mostly; sometimes corn meal, with a few oats mixed, to give the sheep something to make a mouthful, so they can chew it. A little sulphur once a week mixed with their corn, keeps them in a healthy condition, while the salt once a fortnight keeps their appetite sharp.

Keep them warm if they lamb early, and feed a few turnips or potatoes two weeks before lambing until two weeks after. Be careful not to feed too many potatoes, so as to scour and lose your lambs; a bushel to 50 sheep once a day is my rule. Be careful not to let the lambs get too much salt when young, as it is very injurious while young.

I consider good clover hay the best for sheep in winter.

Washington Co., N. Y.

BAKER, JR.

Agricultural Notes in Cayuga County---III.

A Visit to J. L. Clift's Farm.

Mr. Joab L. Clift, of the town of Sennett, was formerly President of the Skaneateles Farmers' Club, and is one of the hard-working, energetic farmers, whose system of farm management, in many respects, is worthy of notice. I spent a few hours at his residence, in viewing his hedges, manner of composting barn-yard manure, and some other things to which I shall allude.

Mr. Clift makes and applies to the soil large quantities of manure. Sometimes it is applied to winter wheat, and sometimes to a crop of Indian corn.

His barns and out-buildings are spaclous and commodious, all resting on substantial stone walls, with good sheds, stanchions, stalls and boxes for all kinds of stock. Beneath the horse stable is a spacious shed where manure is deposited, and as it receives all the liquid portion of the manure, it never fire-fags, and none of it is lost by leeching or evaporation.

It is hardly necessary to mention how much superior such manure is to that which is exposed to rains and sunshine, as long as it remains in the yard.

Mr. Clift understands very well —what hundreds of the farmers of Cayuga and other counties have yet to learn—that a little manure is almost absolutely necessary, in order to raise a crop of wheat, either of spring or winter wheat. Therefore, his practice is to haul out in the former part of the season, as much barn-yard manure as he deems necessary for his wheat crop, in the succeeding autumn, and drop it in a long ridge on the side of the highway, say about six feet wide and two feet deep, at the highest point of the ridge. Then, a few furrows are plowed on each side of the ridge, and the earth is thrown over the manure with shovels.

This system of management secures decomposition, and at the same time none of the gases or salts of the manure can escape by evaporation or leeching. A short time before the manure is applied to the soil, it is forked over, and thoroughly mingled with the earth, which covers it, and with a few inches of that on which it rests, which renders it fine, and in a good condition to be applied to the soil where a crop of wheat is to be grown.

When I was at his residence, he had a heap of such compost, as I have just alluded to, some sixteen rods in length, which was being prepared for wheat next fall.

This system of management appropriates the borders of our wide highways to a good purpose, where manure is composted for wheat, as it is not always desirable to make a compost ridge in a pasture field or meadow.

Management of Highway-Sides.

In that vicinity, and in many other portions of our county, and about the village of Skaneateles, the soil on each side of the beaten track, has been neatly graded and seeded with grass-seed, and all the stones and rubbish removed, and a good burden of grass is cut annually, on each side of the carriage track.

In localities where the inhabitants, by mutual agreement, resolve to allow no stock to run at large in the highways, they are seeded down and mowed, and they afford a good burden of grass. In some localities where the grass had just been mowed, I thought at the time that there would be not less than two or three tons of good hay per acre. Where a farmer has a long line of highway running through his farm, it will certainly pay well to grade the sides of the beaten track, and seed to timothy and blue grass, or with red top, in case the soil is rather low and wet. Where the soil is high and dry, timothy and red clover would flourish well, and pay for all the expense of grading, to say nothing of the beauty and neatness which the tall grass, or a neatly mowed highway, would give to the appearance of the country.

Let farmers improve their idle days during the coming winter, in removing the rubbish from their highway sides, and grading them; and early in the spring let a crop of some kind of grain be sowed, and let them be well seeded with some kind of grass seed. This will be a very good step towards improving the agricultural appearance of our country.

In many localities there might be several tons of good hay cut annually, along the highwaysides, where now there are nothing but bogs, stones, and rubbish, which disfigure not a little the beauty of the farm, and reflect no little discredit on the farmer

Auburn, N. Y. S. EDWARDS TODD,

Chinese Sugar-Cane---Does it Pay in the East?

Having tried a little of the cane the past season, I will give the results of my experience, and of some of those in this neighborhood. We had in one piece three-quarters of an acre, of which I have kept an account of work done to it:

CARE PATCH, Dr. To 1½ days plowing, harrowing, and rolling. 1½ days planting. 2½ days tending with plow and harrow, 7 days stripping and cutting. 1½ days binding, topping, and hauling, at \$1 per day,	1.00 5.00 7.00 1.50
Manufacturing, at 25 cents per gallon	30.50
CANE PATCH, Cr.	\$48.00
By 122 gallons molasses at 75 cents per gallon Deduct expenses,	
4-1	412 50

No account is here made of the seed, of which we had about twenty bushels, most of which was well ripened, nor of the leaves which we gathered. The seed we fed to our hogs, and they are very fond of it. The prices for labor are not under the wages given here. If anything, they are over what was given at that time.

The seed was planted in rows 3 feet 10 inches apart, and 8 inches from seed to seed in the row. The cane was badly down, which increased the cost of gathering. As it was very ripe when gathered, I think the yield was some less on that account. We had another piece, which, if planted with corn, would have given 20 bushels, but gave 50 gallons of molasses. One of our neighbors thinks 90 gallons to the acre paid him better than corn. He made \$32 profit. Another, who had a piece 16 hills by 120 hills, had 92 gallons. To obtain the largest yield I would advise to plant in rows, but it requires more work. I think that taking it all together, Sugar Cane may be considered a success hereabouts.

John Fleming. Readington, N. J.

Massachusetts Board of Agriculture.

THE CULTIVATOR.

As previously noticed in our columns, the Massa chusetts State Board of Agriculture held a public meeting at Springfield Dec. 8–11th—combining with the transaction of its usual business the reading of several papers and the discussion of various subjects appropriate for such an occasion. The attendance of the Board was quite full. The President, Hon. M. P. WILDER, whose health has of late been quite feeble, was consequently unable to attend, but we were pleased to learn that brighter hopes are now entertained as to the ultimate recovery of his customary vigor and activity.

As we could be present on one day only, we cannot prepare a very full report of the proceedings. The number of farmers who took part in them was fair, and the interest manifested throughout very gratifying. It is the purpose of the Board we understood, provided such action is rewarded by the appreciation and approval of farmers generally, to hold these open meetings from time to time in different parts of the State, and to render them as attractive and instructive as possible. They can hardly enter upon a field of labor in which more good can be accomplished. The bringing of farmers together to listen to such reports and addresses as may be provided, is a good thing in itself, but it is perhaps still better when they take part themselves in the discussions that are carried on. And full and carefully prepared reports of these discussions would constitute one of the most interesting features in the Annual Volume published by the Board. As an item going to show the intelligence and thoughtfulness of the audiences on the present occasion, we noticed that the proportion of those busily engaged in taking notes was unusually large.

The first day, Dr. GEO. B. LORING of Salem, in the chair, Mr. Secretary Flint read a partial account of his tour in Europe the past season, including the Hamburgh exhibition, and, in the afternoon, the Agricultural School at Hohenheim. The latter elicited a discussion upon agricultural schools generally, in which Prof. Johnson of New-Haven, Mr. Grout of Ashland, Mr. Sewall of Medfield, and others took part; and the subject was continued in the evening by a paper from Dr. Loring, treating it quite fully, and, as we gathered from those who were present, in a very able and practical manner. On its conclusion, the general discussion was renewed, bearing partially upon the location of the Institution to be established in Massachusetts, and eliciting from Prof. Johnson a statement of his views and experience both on agricultural education and on the management of schools for imparting it.

The second day, ELIAS GROUT, Esq., of Ashland, presiding,—E. W. Bull of Concord opened on the subject of the Soils and Agricultural Resources of Massachusetts, by giving a full account of the characteristics and general management of the Eastern part of the State. He was followed by Dr. Hartwell of Southbridge, Rev. C. C. Sewell, Medfield, A. F. Adams, Fitchburg, W. E. Boise, Blandford, Mr. Chapin of the Massasoit House, Springfield, Henry Colt of Pittsfield, Dr. Loring, Mr. Stedman of Chicopee, and others. The general results of the discussion it would be difficult to condense into a few lines, other than in so far as they

showed that the great want of the Massachusetts farmer is the command of more abundant means of fertilizing the land, together with the important fact, of which several instances were adduced, that continuous culture will gradually ameliorate some of the most obstinate soils of the State, and that its productiveness is capable of very great development as time and increasing population shall afford greater inducements for improvement. The use of lime was strongly advocated by several, and its non-accessibility greatly deplored. Mr. Boise of Blandford, had been very successful with oyster shell lime on his pasture land. There was a collision of opinion in some respects as to plaster, Dr. Hartwell laying down the proposition that it would be of no benefit where the soil shows the stain of metallic oxyds, while Mr. Colt of Pittsfield mentioned a ridge of a red loamy character between that place and Williamstown, strongly impregnated with iron, where its use proves exceedingly profitable. Dr. Loring thought that grass should be the crop of the heavier lands, and that Indian corn belongs on the lighter soils which require frequent culture. He would grow fruit where the soil was poorest,-thought wheat and the morus multicaulis were about on a par in Massachusetts, but that barley-unless in the Connecticut Valley-might succeed well and was worthy of a trial. Mr. Bull, in the course of his remarks said that two tons of well cured corn fodder was regarded by farmers about him as worth one ton of English hay, which would make the value of the former \$8 per ton. Dr. Hartwell had raised 100 bushels of Indian corn on an acre, but the experiment didn't pay. He applies forty loads-say 13 to 14 cords-manure per acre; thinks that the right medium with him, and is satisfied if he gets 75 bush. of Indian corn per acre; more manure makes the oats and grass that follow the corn fall down, and less does not give a large enough result. Well drained land, however, would do with less. There were several tributes, direct or incidental, to the value of the Indian corn crop to the farmers of the State, both for the grain and the fodder produced.

In the afternoon, Professor Johnson spoke of the principles that underlie the application of manures, occupying about two hours with the unflagging attention of his audience. This address was followed by some brief remarks from Luther H. Tucker of the Country Gentleman, Dr. Loring and others. In the evening, papers were read by S. L. Goodale of Maine, and C. L. Flint, on Cheese and Butter Dairying respectively.

We have already exceeded our limits, and can only add our regret at not having been able to remain through the two following days. The third morning Dr. Bull treated Grape culture at great length; in the afternoon general farm crops were discussed, and in the evening Prof. Agassiz spoke on the instrumentality of glaciers in the formation of the soil. The fourth day there was to be a discussion of sheep husbandry in the morning; a paper on breeding, by Sanford Howard, in the afternoon, and one on animal physiology in the evening, by Prof. Wyman of Harvard.

FAT SHEEP.—Mr. Bart. Whitney of this town, (Franklin, Vt.,) killed the past fall, a three year old ewe sheep of the Leicester breed, that yielded fifty pounds of tried tallow. The fat was three inches thick on the ribs. Who beats the "Green Mountain sheep?" E. R. FOWLE.

THE PRACTICAL SHEPHERD.

THE PRACTICAL SHEPHERD: A Complete Treatise on the Breeding, Management and Diseases of Sheep. By HENRY S. RANDALL, LL.D., Author of "Sheep Husbandry in the South," "Fine-Wool Sheep Husbandry," etc., etc. With Illustrations, Rochester, N. Y.: D. D. T. Moore, Union Buildings; Philadelphia: J. B. Lippincott & Co.

This work, which has been for some time announced, is now out, and we are indebted to the author and publisher for early copies. In bulk, it exceeds the first calculations of the writer—extending to 454 closely printed pages. But the ground covered is large,—the plan of the work, however, being comprehensive mainly in the direction of American experience in Sheep Management, and not swollen, as is too often the case, with a compilation of "the general history and description of all the breeds," abroad as well as at home.

In order to place the present position of Fine-Wooled breeds, in this country, fairly before the reader, a certain amount of space was necessary to trace the sources from which they have been derived, and show how they have grown to be what they are—how it is that, for the production of heavy fleeces, the flocks of some of the best breeders in the United States are probably unsurpassed, if fully equalled, in any other country. This part of the book we have not yet read with minute attention, but it may fairly be presumed from the author's long and extended researches on the subject, that his statements will bear the most critical examination.

For the main portions of the chapters on the English and other breeds of sheep, not Fine-Wooled, Mr. RANDALL acknowledges his indebtedness to other sources. These chapters are illustrated with engravings, from drawings by Page, photographs, &c., of specimens of the different breeds, in the flocks of some of our leading breeders at the present time. The chapter on the "adaptation of breeds to different situations," if not so full as some might wish, is fair and discriminating. A dividing line may be drawn, to some extent, between the claims of the Fine-Wooled and the Mutton breeds, respectively, on the general ground that the former are far better adapted to sheep husbandry pure and simple, (by which we mean, sheep as the sole object of the farm,) but the latter for general husbandry, in which the sheep are only regarded as auxilliaries in the production of crops, or as one department among several. Mr. R. hints at this distinction, (which indeed may not be without its exceptions in certain cases,) although very briefly; and as sheep farming, rather than general farm management, is the subject of the work, the fine-wooled sheep naturally have somewhat the largest share of regard.

In the chapters on "the principles and practice of breeding," the author shows himself well read in the works of leading writers, and expresses views which coincide in the main with those we have always held and sometimes had occasion to define in these columns. The reca-pitulation of his positions, (pp. 136, 138,) is a very concise and very sound platform (mutatis mutandis) forbreeders generally; in the numerous conclusions attained, it depends, after all, mainly upon the primary principle that "violent crosses" are to be avoided—that while merging cognate families in one another for the purpose of developing the characteristics they possess in common, if done with judgment under the rules laid down, is the primal source of some of our greatest modern improve--the attempt to obtain a mixture between breeds that are widely variant in their characteristics, will probably result in injuring the good qualities of both, and obtaining improvement on neither. Such a cross may answer a temporary purpose, and that only-in other words, as Mr. R. remarks, in such cases "it is almost uniformly advisable to stop with the first cross."

We shall not follow the author through the chapters on Spring, Summer, Autumn and Winter Management, which together occcupy something over a hundred pages. A chapter on Prairie Sheep Husbandry succeeds, and the Anatomy and Diseases of the Sheep are then considered at length. The volume is concluded with a few pages on the Dog in its connection with Sheep," and with appendices containing a variety of interesting information on statistical and other points.

As a whole, this book is unquestionably in advance of anything of the kind now before the public. Mr. Moore, of the Rural New-Yorker, who is the publisher, we are happy to learn, is likely to reap an abundant harvest from his investment.

MICHIGAN AGRICULTURAL COLLGE.

A correspondent sends us an account of the Closing Exercises of the State Agricultural College of Michigan, at Lansing, Nov. 9-12, from which it appears that the total number of the students in attendance has been 60, classified as follows: Juniors, 7; Sophomores, 6; Freshmen, 15; Preparatory Class, 26; and Select Course, 6. These classes are taught by a Faculty, which comprises the President of the College, T. C. Abbott, who is Professor of History and English Literature; Professor Manly Miles, who is Professor of Zoological and Animal Physiology, and who also has, during the greater part of the term, had the chief superintendence of the farm; R. C. Kedzie, Professor of Chemistry; C. A. Kennaston, Instructor of the Preparatory Class; A. N. Prentiss, Instructor in Botany and Horticulture, and Superintendent of the Gardens; and Occar Clute, Instructor in Pure and Applied Mathematics.

This Institution appears to be in a fair way for the successful prosecution of the ends designed in its establish-The buildings have cost about \$60,000. The farm in immediate connection with the College, contains 676 acres, the value of which cannot be placed at less than \$15,000. In addition to this, the Michigan Legislature has vested in the College about 6,000 acres of swamp lands, adjoining or in the vicinity of the farm. These lands are believed to be worth at present, at least \$30,000, and their value will rapidly increase. Under the act of Congress, approved July 2, 1862, donating to each State public lands to the amount of 30,000 acres for each of its Senators and Representatives in Congress, according to the census of 1860, the College receives 240,-000 acres of land. If the average value be placed at \$1.25 per acre, it gives 300,000. The endowment, therefore, aside from the farm and buildings, cannot be placed at less than \$330,000, and at 7 per cent. interest, this will give an annual income of \$23,100. Each student, not exempt for physical disability, is required to labor three hours a day on the farm or in the gardens. The number of hours may be increased to four, or diminished to two and a half. Some compensation is allowed; but the labor is regarded as an essential part of the educational system of the College, and is performed with special reference to illustrating and applying the instruction of the lecture room. Students are not employed in those kinds of work only, in which they may be most proficient, but as the work is classified, each is made acquainted with all the operations of farming, successively. The Sophomore class work the entire year in the various gardens with the Professor of Horticulture. The Juniors spend the year under the direction of the Superintendent of the Farm. The other classes alternate between the farm and the gardens.

Cement for Stopping Leaks.

A good and cheap preparation for stopping leaks around chimneys, in roofs, in wooden eave-troughs, where the water is not used, and of filling up all kinds of breaks and cracks which are exposed to the weather, may be made by mixing lime with coal tar until it is like putty. Apply it with a large knife, and fill up the chinks where Jack Frost will be getting into the buildings.—

Maine Farmer.

SALE OF VALUABLE HORSES.

While we have sometimes been obliged to animadvert upon the disposition manifested to convert the Show Grounds of our Agricultural Societies into Trotting Courses, it has not been because we fail to appreciate the importance of paying proper attention to the breeding of Horses, not only for Farm work, but also, like other farm products, for a market elsewhere. Prizes are justly offered by Agricultural Societies in this department of effort; and it is not until the Horse, or his friends, endeavor to usurp more than their rightful share of time and notice, that we begin to complain. Still, it cannot be denied that peculiar risks and temptations seem to be connected with the breeding of this noble animal, and that many who might contribute greatly to the development of its powers are restrained from attempting to do so, for the reason that unpleasant associations so often arise.

It is probably true, that while for some purposes we require more of the weight and solid strength characteristic of the English Farm Horse, yet for the manifold uses to which the animal is put on our farms, the common standard here is quite different from what it is in Great Britain. It is not alone to pull heavy loads into the market town, or to turn the long, even furrow, that the farmer's team is required: he must draw the family to church at a pleasant gait; he must be apt at climbing roads not very perfectly graded; he must be brisk before the mower or reaper, as well as stout before the plowindeed we can only describe him by borrowing the phraseology of the prize lists, as "the horse of all work." And it is the general opinion, founded no doubt on experience, that a horse whose natural capacities for rapid motion are good,-who will leave twelve miles an hour behind him with less exertion than some other horses will eight-will also perform his general work more easily and satisfactorily; and it is this opinion, together with the excitement attendant upon "trials of speed," that accounts for the introduction and popularity of these trials on the Show grounds of our Societies. We need scarcely say that any more action there than is necessary for the intelligent award of the premiums offered, tends to bring these organizations into other hands, and to turn their main efforts toward other objects, than those for which they were originally designed.

It was not our intention, however, to discuss the policy of Agricultural Societies; and we were led into the foregoing train of remark from having attended the sale on the 19th, of the valuable breeding stud of S. R. Bowne, Esq., of Flushing, comprising "Toronto Chief" and a number of his colts, together with several other animals of more or less note. The speed shown by Toronto Chief, although never trained professionally for the course, has been good; and, as a roadster, while he is by no means above criticism, his reputation with many is very high. In color he is a dark bay or brown, standing at 16 hands, and weighing from eleven to twelve hundred pounds. His owner had refused several very liberal offers for him, designing to retain him as long as his breeding establishment was kept up; and the fact that he was to be sold on the present occasion without restriction as to price, to the highest bidder, contributed greatly toward drawing the large and flattering attendence of gentlemen who were at the Sale from the city as well as from a distance. As his sale was decidedly the feature the fleetness of a well-bred roadster.

of the day, it was deferred until the other stock had been all disposed of, when, after a few preliminary trials along the road near by, to show his gait and style, he was at last put up by the auctioneer, Mr. Miller, started at \$6,000, and finally knocked down at \$6,650 to Mr. CHARLES ROBINSON of Fishkill Plains, Dutchess Co.

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١		Our marked Cat	alogue nov	w reads as follows:	
	Lo	t. Name or Color.	Foaled.	Sire. Purchaser.	Price.
ı	-	Provincial Chief,	July, 1859,	Torento Chief, W. H. do. S. D. Tom Wonder, G. G. Trojan, do. Not offered	
1	_	Ladd, Richmond	Mov 1939	do 9 B	\$3,700.00
Ì	-	Bradford, New-Y	ork.	do. S. D.	550.60
1	2.	Bay Stallion,	July, 1858,	Tom Wonder, G. G.	
		Howland, New-	ork,	Markey 30	500.00
i	4	Bay Gelding,	Jun., 1889,	Not offered.	450.00
			Apl., 1860,		
1		Bathgate, Fordb	am,	do. Alex. Bathgate, do. J. M. Hammil,	475.00
ı	6,	Sorrel Stallion,	do.	do. Alex. Bathgate,	300.00
1		Philadelphia	uo.	w. J. M. Hammin	375 00
1	8.	Brown Stallion	Apl., 1861,	do. do.	425.00
d	9.	Bay Stallion,	do.	do. do. do. do. Not offered, do. L. Decker, do. C. W. Bathgate, do. do. Chas. Robinson,	950 00
1	11	Black Stallion.	Sen 1861	do. L. Decker, do C W Ratheste	350.00 375.00
1	12	Bay Filly,	Apl. 1861.	do. do.	300.00
1	13.	Chestnut Filly,	May, '61,	do. Chas. Robinson,	250.00
1			YEARLIN	G COLTS.	
I	14.	Black Stallion by T	oronto Chief	Mr. Diderer, Westches-	
Ì	15	Light Ray Stallian	do	A. M. Tredwell, Mad-	180.00
1	19.				205.00
١	16.	Black Filly, do. (lame,)	do.	S. B. Gardner, Springs.	135.00
1	17,	do. (lame,)	do.	C. W. Bathgate, P. Sloan,	80.00
-	18.	do,	do.		175,00
Į	10	Donate Call has The	THIS YEAR		910.00
Ì		Black filly.	do.	J. M. Hammill, J. Bathgate	210.00 190.00
I	21.	Chestnut filly,	do.	A. Bathgate	165 00
İ	22,	Black filly.	do.	A. Bathgate	225.00
ĺ	23	Chestnut filly, Brown filly,	do.	S. B. Gardner	125.00 155.00
1	25.	Bay filly,	do.	Not offered.	100.00
ł			SONTAG AND		
1	26			to Chief, "Col. Bentley,"	
l	20.	Maryland,		to cinei, Coi. Benney,	\$3,175.00
ı	27.	Sorrel Filly, July, 1	%1, by Toron	to Chief, C. W. Bathgate,	500,60
I	28.	Sontag by Harris'	1863, Hamiltonia	do. do, do, J. G. Wood, West Mil-	675.00
l	MJ.	bury, Mass	mammumai	i, v. o. wood, west mir	1.150.00
l			BROOD		
l	30.	By a Morgan hors	e, dam thou	rough-bred, P. J. Henley.	
l	31.	Brooklyn,	I & Looks	ood, New-York, Sweeney, Wheeling, Va.,	\$335.00 400.00
	32	Mare " Mealy Mont	h." Hon T	Sweeney, Wheeling, Va.	475.00
	33.	By Flying Cloud, J.	M. Hammil	1	200.00
	34.	By Young Trustee,	Geo. C. Hal	l, New-York, d, P. J. Henley,	310.00
	36	Not offered	norougn-pre	u, F. J. Henley,	160.00
	37.	An Abdallah mare.	very old. J.	M. Hammill, n. Flushing. Higgins, Flushing.	270.00
	38.	Grey Road Mare, L	. M. Frankli	n. Flushing.	160.00
1	39 8	nd 40. Pair Farm I	iorses, John	Higgins, Flushing, ger mare, has trotted un-	110.00
ĺ	41.	trained in 2:36-fi	ne action—S	D. Bradford	5,000.00
ĺ	1.			nson	6,650.00
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Aggregate of Sale,.....\$29,565.00 As already stated, the company present was large and intelligent, and we are safe in saying that if all the horsebreeding and dealing in the country was left in such bands as those who were represented at Mr. Bowne's, the pursuit would wear quite a different aspect, and the reputation not only of the animal itself but also of those engaged in its improvement, would afford far higher inducements than is now the case for the co-operation of others. The day was a favorable one, and the result we believe, not only highly creditable to the fairness of the proprietor, but pecuniarily for the most part satisfactory. The fast mare "Eureka," which was bought we believe rather as a driving mare than as a breeder, will be a more expensive luxury to the purchaser than most of us would care to indulge in; but, other than this, the supposed breeding value of the animal appeared mainly to govern the bids

There were also sold the Short-Horn bull "Forest King," bred by Mr. THORNE, and some Essex Pigs, to Hon. A. B. Conger—the former at the low price of \$130—there not being many, in a company of "horse men," would be likely to appreciate claims based on such very different grounds as the "obesity" of a beef-producer and

THE BEST GRAPES FOR THE NORTH.

Your correspondent J. W. S., has initiated a good movement in giving his experience in regard to the time of ripening, and value of different varieties of hardy native grapes. Such statements, carefully made, are of much greater value than the vague and interested statements of nursery catalogues, or even the best general works on fruits. I propose to follow suit, and give my experience for the benefit of others.

This year the Delaware and Concord were at this place, (Saratoga Springs,) at least ten days, and the Diana two weeks later than in 1862. The Delaware was this year perfectly ripe October 1, Concord October 11, and Diana October 25, at which time we had a severe frost, killing the foliage of the vines. The Hartford Prolific and Northern Muscadine ripened together the 15th of September. The Diana this year, ripened with me not much earlier than the Isabella, while last year it was more than a week ahead.

In quality the Delaware is greatly superior to all others. Its sugary, delicious, delicate fruit is incomparable, and I find it a thrifty and productive vine, equal in these respects to any other. The Diana is a very strong grower, and I think ranks next in quality. The fruit is larger, and keeps better than the Delaware. The Concord is a vigorous, hardy vine, producing large bunches of handsome fruit, which, when fully ripe, although greatly inferior to Delaware and Diana, is nearly equal to Isabella, but it needs to hang on the vines a week after it is fully colored. Its strong foxy oder after it has been gathered, is diagreeable to many, particularly those who have feasted on the delicate Delaware. The Northern Muscadine and Hartford Prolific are foxy, but valuable for their early ripening.

The soil of my garden is a stiff loam, and some of my neighbors whose gardens are light and sandy, ripened the same fruit a week earlier. My vines are trained upon a trellis rnnning north and south, upon what is called the fan system. At the time the new shoots are first tied up, a sufficient number are selected for next year's canes, and tied with a colored yarn to mark them. These were allowed to grow to the top of the trellis, while the other shoots were pinched off at the fifth leaf beyond the last bunch of grapes. The laterals were pinched back so as to allow but two leaves, and all imperfect bunches were cut off, and I had the satisfaction of having on a few vines a fine crop of grapes, whose size and quality were greatly admired.

For years past, people residing north of Troy and Albany, have wasted their time on Isabellas and Catawbas, doomed almost every year to see their grapes destroyed by frost just as they were beginning to color. Now, however, that early hardy grapes have been introduced and disseminated, we are eager to learn what grapes will mature in our climate. Recollect, oh Country Gentleman, that you have a great crowd of readers North as well as South. The fruit books written in the latitude of Newburgh, have led them into grievous disappointments. When you recommend fruits as hardy, tell us in what latitude.

Will some one who has had experience, tell us of the time of ripening of Allen's Hybrid, Anna, Union Village, Lincoln, Lenoir and Adirondac, as compared with Isabella and Delaware.

C. S. L.

Saratoga Spring, November, 1863.

DAIRYING IN OSWEGO COUNTY.

The dairy business of this county is of recent origin. It has sprung up in the last twenty years, so far as being an article of export to any extent. Only ten towns out of twenty-one make it anything like a leading business. Most of the towns engaged in it might easily double their business in a few years.

The soil is far better adapted to grass than grain, except some few localities. It is well watered, and most of the streams abound with trout, denoting good water; an important essential for dairying.

The quantity of butter and cheese made is largely on the increase, and the quality has greatly improved in a few years. I took some pains to ascertain the surplus amount of butter and cheese made in 1862. After getting the most reliable data from several points of shipment, and consulting some of the most extensive dealers in dairy products, I put the surplus cheese of 1862 at twelve hundred tons, and butter at six hundred tons. The surplus of 1863 will be not less than ten per cent over 1862, which, with the increased price, will not be less than four hundred and fifty thousand dollars returned to the farmers in one year, for the above staples alone. The number of cows in this county in 1860, according to the census, was 21,000, which number has since been largely increased.

Cheese factories are working a new era in dairying in this county. Eight were put into operation last spring. This number will be largely increased in 1864. Every locality having the requisite number of cows and a good spring of water, is agitating the building of a factory. Those factories that went into operation have more than met the expectations of the projectors.

Union Square, Nov., 1863.

HIRAM WALKER.

Proper Distance Apart of Apple Trees.

I used to think that forty feet apart for apple trees was a waste of land, but experience and observation has convinced me that they should never be planted nearer. If nearer, after a time they begin to shade and crowd each other; a struggle ensues for light and air, and the trees run up out of the reach of any ordinary ladder-the fruit forms only on the top of the trees, where it is difficult to pick it, and if it falls it is bruised. An attempt to remedy it by taking out part of the trees, caused the destruction of the others, for in consequence of the shading of the ground, new roots have been formed near the surface, and the old and deeper roots have died-the letting in air and the sun dries them up, and the heavy winds topple them over. The only remedy for such an orchard is to use the knife freely in topping and thinning them. W. E. C. Trumbull Co., Ohio.

CULTURE OF THE QUINCE.

I have some experience with quince trees—(they should always be trimmed to form a tree,) and if I was going to plant them in a rich heavy loam, I should place them, if in a single row, one rod apart, or if in a plantation twenty feet, and train them to form a low full head. If in a light soil, they may be planted nearer, as they will not be likely to fill either the land or the pocket of the owner. If Mr. Porter should remove his trees carefully in the spring, as you direct, he will not know the difference between them and the others another year.

W. E. C.

CULTIVATION OF TOBACCO IN FRANCE.

EDS. Co. GENT.-Copeland, in his "Country Life," page 756, states—quoting from the "Text Book of Agriculture"—that the Tobacco crop "varies from 1,000 to 2,700 pounds to the acre," but that "in France 4,000 pounds is got to the acre." From what source in this country (if any.) could information be obtained in reward to the Franch method of cultivations." in regard to the French method of cultivation? what source in France could a letter be addressed from a number of American planters? Can you give me the names and addresses of the leading Agricultural journals of France? c. Cecil Co., Md.

We have been struck with the fact that the culture of Tobacco is a subject so rarely treated in the leading French agricultural journals. In looking over the volumes for several years of the Paris Journal d'Agriculture Pratique,* we find but a single allusion to the crop and that of an incidental kind and not in an article by itself. Quite a full account of the system of culture adopted, however, is given in Le Bon Fermier, a work also edited by Mons. J. A. BARRAL, and from this source we propose to obtain as full an account of the French management of Tobacco as possible, not only as a reply to the above inquiries, but also because this crop is now one of far more general interest and importance than has heretofore been the case.

CROP OBTAINED.—From four to sixteen thousand plants to the acre are set out according to the climate and soil, but the average crop obtained is stated at "1200 kilogrammes of dried leaves per hectare," which, according to our arithmetic, is about one thousand and sixty pounds per acre-a widely different amount from the exaggerated figures above quoted.

Under the work for the Month of March, we have the following

DIRECTIONS FOR SOWING THE SEED. - Tobacco should be sown in nursery beds, and transplanted in rows in the field, in order to be able to give it the care from day to day, which it so imperiously exacts. As it is to be set out in the month of May, and should at that time have acquired sufficient development to be safely transplanted, the seed must be sown in a bed having heat enough to promote its rapid development. The work is begun so late in March as to be beyond danger from farther frosts.

A bed a rod in length and four feet eight inches wide, is large enough to produce 15,000 to 18,000 plants, for which about 7 ounces of seed will suffice. The bed is made of a mixture of horse and cow manure, thus giving less heat than if of the former alone, but continuing the heat for a longer time. A warm and well sheltered position is chosen, in land rather dry than moist. The upper soil is first taken off, and if rich and of good quality, is laid aside. The excavation is then continued to the depth of 14 inches; filled with the manure fresh from the stables and mixed before putting in, and carried to such a height that when well settled it will be 14 inches in front and 18 inches at the back, above the surface of the ground. The frame is then put on, and the manure covered with say six inches of a mixture of good rich earth, with that taken out at the top of the hole, which latter we suppose to be rich itself, and the sashes are then put in place.

The bed should be thus prepared during the first

days of March. In the latter half of the month, the seed is sown, distributed uniformly over the surface, not buried, but simply watered after sowing with a pot having a very fine rose. The sash is replaced and scattered over with a little litter to lessen the action of the sun's heat, and every two or three days the bed is watered with water warmed in the sunshine. In eight or ten days after sowing the young plants appear, and weeds with them. As soon as they are strong enough, the bed is weeded by hand, which operation is repeated as often as necessary. Air is given to the plants as they grow larger, and they are thinned out where too thick.

PLANTING OUT .- The soil chosen should be new, of good substance, and deep, plowed before winter sets in. It is leveled by thorough harrowings in spring, and spread with "60,000 to 70,000 kil. per hectare," (say 25 to 30 tons per acre) of good farm-yard manure as fresh as possible, turned under to a moderate depth with a plow. A third plowing is then given, four inches deeper than the last, to keep the manure between two layers of soil. Sometimes also a fourth plowing is given just before planting out, but this is most fre-

quently useless.

In planting, the lines left by the last plowing may serve as a guide, or the field may be harrowed and marked off. The plants in the bed, by the first of May, should have attained a height of three or four inches, with four to six leaves. The day before they are transplanted the bed is watered so that the smaller roots may not be injured, in which one will easily succeed with a little attention, if the soil is in part composed of vegetable mould. The rows are laid off 28 or 30 inches apart, or if not marked, they may be placed at every third furrow as left at the last plowing. The plants are 24 inches apart in the rows, or, if the land is very rich, 28 inches apart.

The planting out should be done in cloudy weather, threatening rain. In the South of France, where irrigation is common, a good watering is given after planting. The plant is growing in eight or ten days, and the first cultivation is given with the horse-hoe. A fortnight later a second cultivation follows, and after a

short interval farther, a slight hilling up.

While these operations go on the young tobacco plant rapidly develops; it has reached a height of 20 to 28 inches, and has formed along its stem as many as twelve new leaves. The topping then takes place, which consists in cutting off the crown, before the appearance of the flowers, just above the eighth leaf in the North, and the tenth or twelfth in the South. This leads after some days to a shoot in the axil of each leaf, and these shoots are also pinched off like the tops, as soon as they reach a length of an inch and a half. The sap which still seeks growth, continues to push out either a new terminal shoot or more axillary shoots; and the planter, on his part, must not cease to combat this disposition to shoot, by new and severe pruning. The sap is compelled by this continual exercise of care, to take refuge in the leaves first produced, and they are thus gorged until they sometimes reach a length of over thirty inches and a foot in breadth. Plants grown for seed need neither be headed nor deprived of leaves. They had better be planted in another field. Tillage is continued at intervals during the month of June.

^{*} This is the leading Agricultural Journal of France, and is published at Paris.

TAKING IN THE CROP.—The time of harvest is shown by the yellowish tint assumed by the leaves and the penetrating odor they emit. The lowest leaves are first taken off, as soonest ripened, and forming the lowest quality. When this is done, the intermediate leaves are gathered, constituting a second quality. By this time the upper leaves have completed their maturity; they are gathered last and rank as the best in quality.

As soon as the harvest is thus terminated the stems should be cut off at the ground, which they would otherwise exhaust by suckering, and a deep plowing follows at once to bury the stems and destroy the roots.

The tobacco leaves, as they are taken to the drying house, are laid on the ground in lots of ten or twelve, with care not to mingle the different qualities. After three or four days they have lost a part of their moisture and are sufficiently wilted to be exposed to a current of air. They are then strung by means of a large needle passed through the midrib of the leaf at its base, on strong twine which is stretched upon nails or hooks in the drying house in several regular tiers. The air does the rest. The drying houses are ordinarily simple sheds open to every wind.

The Pennsylvania Agricultural College.

MESSRS. EDITORS—Having recently spent a few weeks at the Pennsylvania Agricultural College, in charge of the classes of its President, while he nursed a broken arm, and having had a very good opportunity to see what the true character and merits of the institution are, I am strongly moved to say just a few words in praise thereof, through your columns.

The Chemical Department of an Agricultural College is among the most important, if not indeed of more consequence than any other; in the Pennsylvania college it is most completely organized. There are three laboratories, one of which is designed for beginners and students in qualitative analysis, and will accommodate easily forty, giving each one abundant table room and shelves, drawers and closets. The two rooms to be occupied by students in quantitative analysis will accommodate thirty-six. One of these was finished while I was there, and occupied by the quantitative students for the first time. The other laboratories were nearly ready for occupation, and are undoubtedly at this time of writing.

All these laboratories are as convenient in their arrangements as the best I have seen in this country or in Europe; and the chemical lecture room will, when completed, be better adapted to the performance of experiments before the class than any I have visited.

While I was there the finishing touches were being put on all over the premises; the new dining room was made ready for occupation, and a joyful day was it when the old shanty, which has been used for a dining hall from the time the institution was opened, was forsaken for the spacious and comfortable room in the college building. The chapel was being painted, mineral cases were being made, the heaps of rubbish left by the builders were being transferred to the pits from whence clay and stone had been dug. Even during the few weeks I was there a great improvement was visible, and matters assumed a much more finished aspect. At the opening of the next session everything will, without doubt, be

ready for the occupation of the building, up to its full capacity.

I venture to say, without a fear of my assertion being disproved, that there is no other agricultural college in the country where scientific and practical agriculture can be studied so well as at the Agricultural College of Pennsylvania. It has a man at its head who has most carefully studied this matter of agricultural education, as well in this country as in Germany, France, and England-who knows as well as any one in this country what it should be, and with his whole soul he is intent upon realizing his ideal in his own college. We can really say now that we have an agricultural college among us that is something like what such an institution should be; and Pennsylvania may well be proud of this her offspring, and proud that among all her sister States, she not only leads the van, but is far ahead of them all. The farmers of your own State will have to wake up speedily, if they would not be outstripped in this great work.

Pennsylvanians might be much prouder than I fear they really are of their college. I apprehend that but a very few of them realize its value to them, or in any due manner appreciate the opportunity they now have of making intelligent farmers as well as lawyers, physicians, or merchants of their sons. The old prejudice against bookfarming, and the old foolish notion that what they knew and got along well enough with, is enough for their sons to know, prevail far too widely yet among our worthy tillers of the soil.

But try the experiment, farmers. If you have a son who likes study, and who likes farming, send him to this college of which I have been writing; give him a fair chance, and when he comes home see if he does not do better with the old farm than you did. He assuredly will, for it cannot be otherwise in the nature of things, than that a man, all whose daily dealings are with nature's laws and forces, will be more successful the better his acquaintance therewith. It is not more necessary to undertake to prove this, than to prove an axiom; for it is a self-evident truth.

Try the experiment, and you will see that a course of education specially adapted to the case, will be just as valuable to the son who carries on the old farm, as to the one who leaves the homestead for the bar, the pulpit, or the doctor's office.

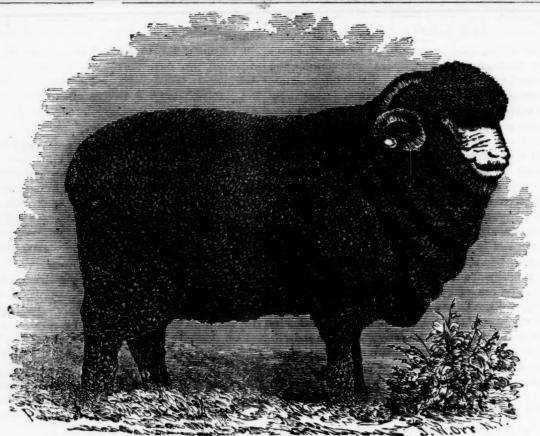
Try the experiment: it cannot do any harm; and if it results successfully, rest not within the sphere of your own influence till your own State has an Agricultural College worthy of it. And thus you will be doing your share towards making others recognize in your profession its true nobility, by doing all you can towards making its professors more intelligent.

G. C. CALDWELL.

Washington, Dec. 2, 1863.

AG. STATISTICS IN WAYNE COUNTY.—The Journal of the Agricultural Society contains the Agricultural Statistics for 1862 of the Township of Galen, Wayne Co., from which we condense the following facts:—

Crop.	Acres.	Bushels,	Average.
Spring Wheat,	236	2,437	101/
Winter Wheat	3,283	54,564	16%
Oats,	2.638	94,791	36
Barley,	960	21.307	2314
Indian Corn	2.574	95,829	37
Potatoes	305	35,793	117
Peas and Beans,	63	1,108	1734
Root Crops	51	3,184	6214
Meadow and tons hay	3,254	4,466	136
PRODUCTS OF LIVE STOCK.		Pounds.	Average.
Cows milked for butter,	1.238	139,319	1125
do cheese,	583	18,721	322
Hogs fattened	1.859	868,499	200
Sheen shorn, fleeces	4.285	18.199	414



Merino Ram "Sweepstakes," bred by, and the property of EDWIN HAMMOND, Middlebury, Vt.

We are indebted to D. D. T. MOURE, Esq., publisher of the "Practical Shepherd," for the above engraving from that work, in which he is described as follows:

"Sweepstakes" weighs about 140 pounds. Taken all in all he is about as perfect a formed Merino ram as was ever seen, and defective in no essential particular. His wool is $2\frac{1}{2}$ inches long, fine, extremely even, and does not contain a particle of jar. His belly, head, &c., are admirably covered, and he is wooled profusely to the feet all around. He has no external gum, is medium in point of

color, but possesses abundance of thin, yellowish yolk. His wool opens brilliantly, and with a beautiful style. He has produced a single year's fleece of 27 pounds. His constitution is powerful. He impresses his own characteristics unusually strongly on his get. He took the first premium of the Vermont State Agricultural Society as a lamb, as a yearling, and as a grown ram. In 1861 he met several of the best rams of the State (the best of his competitors were got by himself) in a sweepstakes, and was victorious. Mr. Hammond has been several times offered \$2,500 for him.

SOWING FLAX SEED WITH BARLEY.

Having seen an inquiry in an October number of the Co. Gent., from M. B. G., for information in regard to sowing flax seed with barley, I will give my experience. Last spring I was induced by one of my neighbors to try the experiment on a five acre lot which I had sown with barley and finished harrowing in. On this I sowed one bushel of flax seed, being a trifle more than 6 quarts per acre, and harrowed it in, except one acre; and on harvesting, if there was any difference, it was in favor of that which was harrowed.

From this field I received an excellent crop of barley, and 15 bushels of flax seed, and do not think the flax injured the growth of the barley in the least.

jured the growth of the barley in the least.

Mr. M. B. G., any common fanning mill with a fine screen, will separate it from the barley. This is all the experience I have had, and the result has been profitable this time. Will some one else please give their views?

Newfane, N. Y., Nov. 17, 1863,

JAMES MCCOLLUM.

BARN-YARDS.

MESSES. EDITORS—As some inquiry has been made about a way to make dry barn yards, I will propose a plan, and would say that the yard must be raised with something, above the level of the ground around it, except it be planked, and in that case it must be slippery at it becomes old, but not before.

times and soon rot out. It makes but little difference what the yard is raised with, except clay. If stone are most convenient, cover it one foot thick with them, taking care to pound up some of the top ones with a sledge hammer; then put on dirt or sand, (coal pit bottom is better,) and shape to your liking, and when you have used this yard two years, my word for it you will say it has not cost too much. Do you say it cannot be raised unless the barn is raised; then raise the barn. Put a screw under and you can raise one corner one foot high in five minutes. Every farmer should have one or more screws; they are handy for many things besides raising buildings, and they cost but little—\$2.50 at the foundry, and all the fitting they require is a piece of plank one foot square, with a hole in it for the collar.

HOW TO MAKE CIDER VINEGAR.

Bethlem, Conn.

W B C. is informed that to make cider turn quickly to vinegar, he should add two per cent of molasses to his cider, putting the molasses into a kettle filled with the cider and bringing it to a boil, then stirring it into the cider in the cask. A sheet of paper should be dipped in the molasses and put into the cask after it is stirred, to form mother. This will make vinegar that will possibly need to be wasted when it becomes old, but not before.

W. E. C.

THE CHINA SHEEP.

While the pen is in hand, I will give McM. the opinion we have here formed of China sheep, after an experience of twenty years.

Augustine Heard, the founder of the mercantile house which bears his name in China, during his residence in that empire some 25 years ago, sent home to his farm in this town a select flock of these sheep. Some of that race were kept upon that farm until two years ago this fall, when the last of them were sold to the butcher for \$2.50 per head. These sheep spread to other farms, and have been universally found both undesirable and unprofitable. All that can be said in their favor is, they are large, docile, and very prolific. But when obtained of good size and in great numbers, they are not good for either wool or mutton. The wool is of medium length, rather coarse, and thin in the fleece. When the fleece is parted the wool is of a beautiful, glossy, pearly whiteness, and if it were worked alone, I should think it would make a beautiful fabric. At present it is an undesirable wool, and the pelts are generally thrown out by the wool-pullers. Nor are they better for mutton. All the fat is on the rump and tail. The tail is long and from five to nine inches broad at the top, and is a perfect gaub of fat. The kidney does not fill out-the loin is thin-the leg gaunt and stringy; and the fore-quarter is as blue and lean as that of an unfed sheep of the common breed.

Ipswich, November 28, 1863. GEORGE HASKELL.

TREATMENT OF SHEEP IN WINTER

We often read that sheep should be taken from the pasture soon after heavy frosts are around us, removed to the barns and given dry feed. I have thought such remarks often led the flock master astray, as he does not always reflect that although this may be good advice where the writer lives, yet it will not answer his case. Men should consider their circumstances, and act according to the position they are in. In the fall of 1848, I turned 40 wethers and 3 steers into a field that had been cleared of stock in July previous, and the grass allowed to grow up until late in the fall; this growth of grass, together with a stock of straw was the only feed the sheep and steers obtained during the winter and the following spring, until after shorn, when I sold them. The drover remarked to me when he was starting them away, that I must have grained them very heavy, for they were the fattest sheep he had ever seen. Since then I have often wintered sheep in the same way, and unless heavily stocked, with satisfactory results. Last winter, my entire flock of sheep wintered in the pasture, without any hay or grain excepting a few days only; in the most stormy weather I took them into their barn. This winter I expect to keep my sheep the same way unless we have more snow than is desirable. I will say that my sheep are Spanish Merino, and come out in the spring generally, in as good case as in the beginning of winter, and mostly better, for in the fall they are mostly the thinnest, from the annoyance of flies in the hot weather, driving them into a fence corner, and the ewes having suckled their lambs.

Now this statement will not answer those who have never yet learned to have good pastures; neither will it suit those who have an abundance of hay and grain and nothing else to consume it; neither will it suit a man with two feet of snow on his land, and a barn full of hay;

yet how often do we see men doing just as though they were in that fix when there is no use for it. Farmers look more to your pastures, rely more on them, and then note the difference. Although calling your attention to an important affair, I shall stop lest I tire both editors and readers.

J. S. Goe.

Near Brownsville, Fayette Co., Pa.

LONG ISLAND CROPS.

John Harold, Esq., Secretary of the Queens Co. Agricultural Society, sends us the proceedings which took place at the Winter meeting of that association, at Hempstead, Nov. 23. A prize was awarded to Mr. D. K. Youngs for an Essay on Asparagus Culture, which we should be pleased to receive for publication in the Country Gentleman.

A PROFITABLE RYE CROP.—Mr. David Vandergaer of Jamaica, received the prize of the Society on a crop of Rye, as to the cultivation and cost of which he submitted the following statement:—

The farm is situated at Springfield. The soil was in good condition. The previous crop was potatoes manured with cow-yard manure, at the rate of about twenty two-horse wagon loads to the acre. The present crop of rye had no manure of any kind whatever. It was sown about the first of October, 1862; the quantity of seed used was about two bushels to the acre; quantity of ground 2 acres, 3 roods, 13 9-10th rods, as per survey.

VALUE OF CROP. 102 bushels of Rye at \$1.50,	\$123.05 147.50	4970 55
EXPENSES.		4410100
3 days plowing and harrowing,	\$9.00	
5 bushels seed.	5.00	
4 days cradling, etc	3.00	
20 days threshing,	15.00	
Expense of marketing	5.25	
Interest on land,	15.00	
		\$52,25
Profit		4010 00

The prize Onion Crop was that of Mr. Jacob Smith, Oyster Bay—cost and return as below:—

The land is situated on Centre Island, town of Oysterbay, consisting of 1 acre, 3 roods, 5 12 00 rods, as per survey.

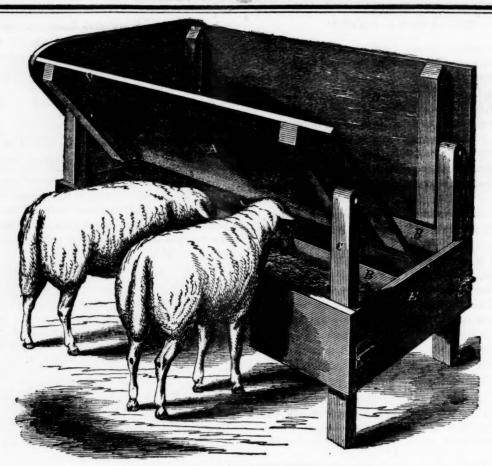
Net Sales of crop of Unions,	*******	\$1,0to.33
EXPENSES. 80 loads yard manure	\$80,00 180 00 60.00 65,00 20,00	\$405,00

President—John C. Jackson, Newtown, Vice-President—Townsend D. Cock, Locust Valley, Secretary and Treasurer—John Harold, Hempstead, Directors—B, H, Creed, Jamaica, and R. E. Thorne, North Hempstead

THE ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS for 1864. Price twenty five cents.

This, in our opinion, is the cheapest, neatest and best manual of agriculture ever published. The present number is profusely illustrated, and contains a large amount of useful and entertaining matter upon rural affairs. Taken in connection with the numbers which have preceded, and all of which may be obtained of the publishers, neatly bound, it makes a complete little agricultural library in itself, which ought to be in every farm house. Published by LUTHER TUCKER & Son, Albany, N. Y.—Massachusetts Plowman.

The annual meeting of the Ohio State Board of Agriculture will take place in the Agricultural Rooms, (State House) in Columbus, on Wednesday, the 6th day of January next.



HALE'S IMPROVED SHEEP RACK.

to obtain the greatest benefit from it by preventing the sheep from having access to the fodder except at proper times; it is also adapted to other purposes, being capable of conversion into a shearing table, and as a weather-proof salting house, or shed in the summer or mild seasons. The engraving represents one side, A, of the rack turned in, disclosing the feeding-troughs, B, and the internal arrangement of the rack or box, more properly speaking. These feeders, A, are swung on pivots in the upright bar, C, and when in the position indicated in the engraving on the side where the sheep are feeding, permit them to have access to the fodder at all times. When roots or fine feed are used fodder at all times. fodder at all times. When roots or fine feed are used in the feed troughs, it is necessary to clean them out occasionally; and to do this, the feeder boards, A, are turned up, as shown at D, and the attendant can then

This apparatus is intended to economize feed, and go inside and sweep out troughs through the door, E, without being hindered or delayed by the crowding or desire of the sheep to get at the feed. The feeding boards can also be turned up in a horizontal position, so that by merely placing a bar underneath the two leaves, when so turned up, a table is made which may be used for shearing on in the spring; or by partially inclining the sides in the form of a roof, and placing a ridge-piece over them, the salt, which it is usual to supply the sheep with at certain seasons, can be thrown in the troughs instead of scattered around under foot and on rocks to be wasted; the inclination of the roof serves to keep off rain and dew, and is thus turned to good account in this respect. A patent is now pending on this invention through the Scientific American Patent Agency, by Robert Hale of Fitchburg, Mass.; and any information can be had by addressing the inventor at that place.—Scientific American.

It is with sincere pain that we have to announce the death, at his residence in Morris, Otsego Co., on the 28th November, of Col. Francis M. Rotch, in the 42d year of his age, after an illness of three days, terminating in congestion of the brain. The following remarks from the Albany Evening Journal, express so justly the appreciation in which our friend was held by all who had known him, that we copy them at length:

Col. ROTCH had been a Vice President of the State Agricultural Society, and his friends were only awaiting his own permission to bring forward his name as its Presiding Officer. When the Department of Agriculture was created under the General Government, his peculiar fitness to superintend its organization and conduct its operations, led to the hope that he might have been selected to this important post, which he would have filled so creditably both to himself and to the country. His death, in the prime of manhood, with so much of promise for his riper years, and so unexpectedly and suddenly for us all, leaves

a place vacant in many a heart beside those most nearly connected with him, which will long remain unfilled.

The third annual meeting of the Indiana Pomo-LUGICAL SOCIETY, will convene in Indianapolis on Tuesday Jan. 5, 1864, and continue in session four days. A general invitation is extended to all persons who are in any way interested in fruit culture. Addresses and Essays are promised from the President, I. D. G. Nelson; Wm. H. Ragan, Fillmore, Putnam county; John C. Shoemaker, Rome, Perry county; John W. Tenbrook, Rockville, Park county; Dr. John A. Warder of Cincinnati; Wm. H. Loomis, Indianapolis; Dr. J. C. Helm, Muncie, Delaware county; Dr. R. T. Brown, Indianapolis; Rev. J. Knox of Pittsburg, Penn.; Wm. A. Ragan, Clayton, Hendricks county; Rev. Alexander Sterrett, Evansville, Posey county; Sylvester Johnson, Dublin, Wayne county; J. J. Conley, Richmond, Wayne county; B. H. Wright, Canton, Washington county; Allen Loyd, Indianapolis; A. M. Purdy, South Bend, St. Jo. county, and G. Goldsmith, Indianapolis.

G. M. BEELER, Sec'y. smith, Indianapolis.



[For the Country Gentleman and Cultivator.] POULTRY KEEPING AND RAISING.

Having been for some years a subscriber to your excellent paper, THE COUNTRY GENTLEMAN, and also having gained some very valuable hints from it and the An-NUAL REGISTER, I now propose to return in a slight degree the pleasure I have derived from those papers, by contributing the additional information I have acquired by experience on the above subject.

As I propose keeping poultry entirely with a view to profit, those who raise them for "fancy" may be somewhat disappointed that I do not sound the praises of their pet breeds.

The first and most important step in the successful raising of poultry, is the situation and building of their abode, and there are four principles to be borne in mind in the erection-light, warmth, ventilation and cleanliness-and in order to illustrate these requisites the more fully, it is proposed in the present article to give merely the plans of the hennery on the writer's premises, reserving for some future time the most preferable breeds, mode of feeding, rearing of young, &c.

Entire originality cannot be claimed in the construction of the house, but the plans are the result of observation and ideas suggested in your paper from time to time, and although somewhat resembling the external appearance of fig. 23, page 74, vol. 3 of the Annual REGISTER, I cannot yield the palm of the model poultry house to the editor of the "New England Farmer."

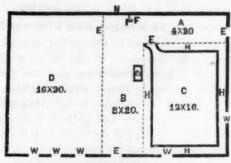
A spot as convenient as possible to my dwelling was selected as a site for the building, for the nearer the poultry house is to the habitation of man, the fewer will be the attacks of birds of prey or any destructive animals. The foundation was dug in a side-hill, with the north and west walls banked up to within 2 feet of the eaves, leaving the south and east fronts entirely open. This was done in order to break the cold wintry winds.

The building is of brick, 36 ft. by 20 ft. inside, the walls being 8 in. thick, 9 feet high. There are windows in each gable; also 3 windows 5 ft. by 3 ft., separated by brick piers, in the roosting apartment; two windows in the laving room, and also the door in the south front is half sash, affording an abundance of light and air. There is also a ventilator in the roof over the roosting apartment, with a strap so arranged that by means of a cord and pully it can be raised or lowered at pleasure. There are two doors, one on the south, opening into the yard; the other on the east side, and as an entrance into the building. Three openings for the fowls-two into the roosting room and one opening into the laying room, complete the exterior of the building.

There is a cistern five feet square, on the north side, that discharges itself by means of a faucet in the building, thereby dispensing with the necessity of a pump.

The interior will more readily be understood by a glance at the ground plan.

in the winter; C., nest room; D., roosting room, with successful cultivator.



GROUND PLAN.

the usual ladder-like perches; E., doors; F., cistern faucet; G., chimney, into which is inserted the pipe of a small farmers' boiler, holding about 15 gallons; H., shelves for nest boxes; W., windows.

The walls inside are plastered and finished with lime and white sand, thus adding to the warmth of the building, and presenting a smooth surface for white washing.

The floor was first paved with brickbats, and grouted, and then floated off with a thick coat of cement, rendering it entirely rat-proof, and easy to remove the droppings. The floor above extends over the rooms C. and B., and is about 20 feet square, and is used for feedbins, (of which there are three,) and for storing coops, nest-boxes, &c., when not in use. The loft is gained by means of a ladder through a trap-door over the room B., thus doing away with the necessity of a stairway; the ladder when in disuse may be hung on hooks screwed into the partition.

The grain is hauled up by means of a tackle, and discharged below through shoots as required.

The partitions between the different apartments are made of slats 1 inch think, 21/2 inches wide, and set 3 inches apart. This arrangement allows a free circulation of air, and also the heat from the stove in winter, to equalise the temperature.

The last, though not the least requisite, is the proper arrangement of the nest boxes. Upon this part of the establishment I have paid more attention than to any other, and after trials of many of the plans advocated have adopted the present one. There are two shelves running each side of the room, the first about 12 inches from the floor, and the other about 18 inches above it: the shelves rest upon brackets which project about 5 inches beyond the shelves, upon which is fastened a bar for the hens to hop upon before going into the nests.

The boxes are made of siding 16 inches by 14 inches, planed inside and out, without any bottom, the shelf forming a bottom, thus rendering it easy to cleanse after three weeks' occupation. In order to give an idea of security to the nests, I have nailed laths between the shelves and fastened small hemlock branches between

There is a yard attached to the building, 36 by 80 feet, boarded close from the ground about 3 feet, in order to keep off cold winds. There is also in it a shed about 75 feet long, and six feet high, under which the fowls congregate in stormy weather.

I have now given, as far as I am able, an exact description of the fowl house, and if this article can afford any information or pleasure to your subscribers, I shall feel most amply repaid.

Annandale, Duchess Co., N. Y. CHAS. E. SANDS.

A GOOD ONION CROP.—Editors of the Co. Gent.—I am informed that HORACE WARE, Jr., of Marblehead, has cultivated fourteen acres of onions the present season, realizing five hundred bushels to the acre. sider a very good crop for any season, but especially so at the time when the maggot leads captive more than half A., passage way; B., room for preparing warm food that are planted. Mr. WARE is a most intelligent and J. W. PROCTOR.

Agricultural Notes on Cayuga County---IV.

Cultivation of Grapes and Vineyards.

The cultivation of grapes in Cayuga Co., in some localities is securing a good share of the attention of some farmers; while in most localities our statistics show that this branch of business is almost wholly neglected. On the eastern slope of Cayuga Lake, in the towns of Genoa, Ledyard and Springport, we find the best vineyards, and the largest number of vines of any other town in the county. In some other parts of the county, however, we meet with a small vineyard occasionally, while the great mass of the farmers of the county are contented with only one, two, or with half a dozen vines each.

A few individuals in the town of Auburn, have what might be called vineyards of good size, although the vines are at present quite small. The largest number of vines owned by any one individual in the county, according to our Agricultural and Horticultural Statistics, is reported by one of the correspondents of the Co. GENT., Mr. E. A. King of Genoa, whose vineyard of 20,000 vines is on the eastern shore of Cayuga Lake.

In the beautiful village of Aurora there were more grapes raised, and more domestic wine made, during the past season, than was reported from any other town in the

In some localities warm graperies have been erected at enormous expense, for the purpose of propagating foreign grapes of the choicest varieties, which cannot be matured in our climate in the open air.

Dr. S. Willard of this city, has erected a beautiful grapery during the past season at an expense of \$3,000. There are also other graperies in this city, but much less expensive than that of Mr. Willard's, which I have not time and space at present to notice in detail.

The Best Kinds of Grapes.

I think it will not be denied that the best kinds of grapes for this locality, or for any other, are those that will flourish best, and bear most abundantly. Although the Isabella, Catawba and Clinton varieties appear to take the lead in most localities, still the Delaware and the Concord are beginning to assume their proper place in the esthe grape growers of our county, as having timation of no successful rivals in point of productiveness and early

When the season is short, on account of early frosts, if any grapes come to perfect maturity, they are the Delaware and the Concord, although many cultivators will stoutly contend that the Isabella cannot be superseded by any other variety that has been well tested. There is one fact, however, which cannot be refuted, which goes to establish the superiority of the Delaware and Concord over other varieties. Where these varieties are cultivated in close proximity to other kinds of grapes, and where the vines are of the same age, and have received the same good cultivation and treatment in every respect, the fruit is superior, and always a little earlier than any other varieties that are cultivated in the county.

There are many other kinds of grapes cultivated in the county which we have not mentioned, and which will doubtless never come fully up to the recommendations of the sellers, or to the anticipation of those who cultivate them, except where special care is exercised in the cultivation, and also when the season is favorable, and the vines have been laid down during the winter.

Laying Down Grapevines in Winter.

In my rambles in various portions of this and adjoining counties, I have been very particular in making observations with reference to the productiveness of those vines that have been laid down when compared with those that have not been laid down during winter, and I have found

it an invariable rule that those vines, no matter what was the variety of grape, which had been detached from their supports in late autumn, and laid down and covered with a few inches in depth of soil, or with leaves, until the cold weather had passed in the spring, yielded good crops of grapes, while those that had not been laid down during winter yielded but little fruit, and in many instances, none at all; and when such vines did bear the grapes were almost always several days later in maturing, and were also of an inferior quality.

I could mention reliable instances in the same vineyards, where the vines that had been laid down and protected, were loaded with fruit, while those that were left on the trellises during the winter, produced compara-

rively nothing.

People of our county are learning that their vines must be protected from the intense cold of our long winters. Therefore, most of them cut their vines loose from the frames early in November, and lay them on the ground and cover them with leaves or with a few inches in depth of light earth, and they find that the little expense and trouble of performing this job, returns an ample compensation in fruit the next season.

I have my mind on a number of choice vines in this city, that had been trained and cultivated with great care and expense, some of which were killed right out by the severe cold of winter, while some others were so seriously injured that they produced no ripe fruit at all. Whereas, had they been laid down during the cold weather, no doubt they would have produced a bountiful crop of delicious grapes.

Let every one who owns a grapevine cut it loose from its supports, and cover it with light earth, leaves, or with thin pieces of turf, until the warm weather of next spring admonishes us that it is time to uncover it again, and hang it on the frame. This practice has secured large quantities of delicious grapes, when, had it not been done, there would have been no fruit at all on the vines. practice is beneficial to the most hardy varieties of grapes, and without it, little or no fruit may be expected when the variety is of a tender sort.

Manuring Grapevines.

Many men contend that grapes need no manure, and that manure is decidedly injurious, as it produces such a luxuriant growth as to cause mildew before the fruit has ripened. This may be correct in theory, but we have not met with any instances in this county, where mildew could be traced with any degree of certainty, to the influences of the manure that was applied to the vines.

I have remarked in many instances, that those men who raise the largest, fairest, and earliest grapes, are those who manure their vines most abundantly. But those who apply the most bountiful dressing of manure, are always careful to have it well spaded into the soil as early in the spring as it can be done after the cold weather is past; and after this, during the entire season, the soil is kept mellow by frequently stirring it with hoes.

The manure is usually applied in late autumn, when the vines are laid down. After they have been cut loose from the frames, and pruned properly, they are placed to-gether as closely as practicable, and held down by one man while another one covers them with a thin covering of good barn-yard manure, and then covers the manure with as little of the earth as will be sufficient to hold the vines down beneath the manure.

By the best grape-growers of our county, this mode of manuring grapevines is considered far superior to simply mulching them. The argument in favor of this practice is, and it is doubtless correct, the sun warms and enlivens the soil about the vines, and keeps the roots in a more healthy condition than they would be when the surface is healthy condition than sho, covered with a stratum of mulching.
S. EDWARDS TODD.

PRICE OF WOOL.-I sold my wool last week for 80 cts. at my door, to be delivered in Kalamazoo, "Out West" and L. F. A. to the contrary notwithstanding.

Spring Brook Farm, Mich., Nov. 23. SMALL FARMERS.

Grinding Bones---Top-Dressing Grass Land with Bone.

EDS. Co. GENT .- J. J. H. G. asks how I pulverise bones? I have always bought them in the ground state. I have never attempted to grind or pulverise them, and do not think it can be done well or economically upon the farm, as it requires great power and heavy machinery to do it thoroughly. They are ground at two or three establishments in this State, and can usually be bought at the Agricultural stores in Boston at \$25 to \$30 per ton. It does not injure the bone to boil it. Indeed, the best bone I have used was bought of a tallow-chandler, who had steamed the bone at a high temperature to extract all the grease. I do not think this process added any thing to the value of the bone; but I was sure of getting fresh bones, (which are much the best,) as old and dried bones would not be subjected to this process, though they are collected and ground for manure in large quantities.

I can give a reliable answer to the inquiry of J. L. A. as to the value of bone as a top-dressing for grass land. Fermented or rotted by the process described in your paper of June 25th, it furnishes the cheapest, most active and permanent manure that can be thus applied. I have used much of it in that manner, and can speak with confidence in the matter. I have used it upon old sward and when seeding down to grass. A grass field of 17 acres was laid down to grass in 1854 and 1855, with no other manure than 500 lbs. of bone prepared in the manner stated, and 250 lbs. of guano, to the acre. It has been mown every year since with no diminution of the crop. The quality has deteriorated somewhat by the intrusion of the coarser grasses in the lower parts of the field, but the crop is no less than it was for the first few years. Several neighboring farmers, who made much fun at me, for manuring such a field "out of a water-bucket," have, since seeing the effect upon my land, applied bone in the same way to their grass land with similar results.

I can well understand why crude bone should not act advantageously, as Mr. FAILE says. Applied in that state, in a thin body, to the surface of the ground, it was in no condition to rot, and without that it cannot act as manure. Agriculturists seem to have overlooked the obvious truth that organic substances must be disorganized by natural processes before their elements can enter into new com-There is no exception to this law. Bone, binations. fresh meat, blood, recently voided urine or excrement, and all vegetable matter, in an undecayed state, are wholly valueless as food for growing plants. They must be placed in conditions to decay-to set the elements of their composition at liberty-before those elements can unite with the growing plant. GEORGE HASKELL. Ipswich, November 28, 1863,

EARLY WINTER WHEAT WANTED.

Messes. Editors—Being at leisure at present I concluded to dot down a few lines for the purpose of asking of your numerous correspondents the discussion of the subject of Winter Wheat, the cause of smut, rust, and their preventive, their experience, &c. These are the most fatal diseases to the wheat plant in this part of the western States. As for the midge and chinch bug, they are unknown here, though in other States they are the greatest enemies to the wheat crop, and they seem to fully discuss these two pests; but those of the southwest are but little discussed in your excellent journal.

I will give my mite as to the smut. I disregard the smut; it has not injured me in the least, but has rather been an advantage to me. All that is required to prevent the smut, is to thoroughly wet your seed wheat, and then take fresh slaked lime and dry your wheat with it just before sowing. This gives your wheat a good start, and I think partly prevents the rust also, but not entirely. For the last five years I have fully coated my seed wheat before sowing, and have had no smut. Several of my neighbors have tried the same, and have had no smut where they limed thhir seed before seeding.

As for rust, the best preventive known to me is a very early variety—could we here in the southwest procure a variety that would mature as early as what is known here as the Hickman or May wheat. When I was a small boy this variety matured by the 15th of May; but it gradually became later, and of late years the same variety is but a few days earlier than the Mediterranean and several other early ripening varieties.

Now the question arises where are we to procure seed from that will mature as soon as this May wheat did when first introduced here; but I cannot ascertain for certain where this May wheat was brought from, but the most satisfactory information I can gather is that it came from South America, and I have nearly concluded to have some imported from there; but before doing so I should be pleased to have several of the best practical farmers give their opinions and experience on the subject.

Messrs. Editors, give us a chapter on this subject. It would be very interesting to the farmers to think of these long winter nights when they study out their plans for another season. I have been much interested in reading the various discussions on various subjects in your journal, and have been much benefitted thereby. Those discussions and editorials of yours have their effect upon the farmers, very visible to the neighborhood wherever the Co. Gent. makes his welcome visits weekly—much neater farms, better crops, finer stock, and happier families make their mark visible. F. Pound. Jefferson Co., Ky.

PREPARATION OF CHICCORY FOR USE.

As a good deal of chiccory was grown the past season, to be used as a substitute for coffee, the following directions for preparing it, from a correspondent of the *Ohio Furmer*, may be useful to our readers:

When the roots become of a fair size, any time during the season, they may be taken out as needed for use; but the bulk of the crop should be allowed to attain to full maturity, when the roots should be lifted during fair weather, dried upon the ground until the dirt will fall off. When desired to be worked up for coffee, the roots, being clean of dirt, either by brushing or washing them, are sliced in quarters from end to end, and then cut across in pieces about an inch in length. In this shape they are to be dried much the same as apples are dried, each piece of chiecory being about the size of an apple quarter. They may be strung upon strings, and hung up to dry in the sun or by the kitchen fire, the same as farmers dry apples; or they may be exposed to the sun on racks or wickers, to be taken in at night. Or, though not so good a way, except in case of necessity, they may be cured in ovens or dry kilns, as apples are sometimes cured.

When this first process of curing is accomplished, and the root is wanted for final use, it is carefully roasted, the same as coffee, till it will break up in a mortar or grind in a mill, after which pounding or grinding, it is steeped or drawn in the usual way, and poured out for a table beverage.

In this way all the work is done in the family, and the cost of the roots ready for the coffee pot is not more than three or four cents a pound, while you have a healthier beverage than if you went to the expense of purchasing imported coffee, with the additional satisfaction of feeling that you are partaking of the fruits of your own home labor.

PRUNING AND TRAINING GRAPES.

MESSRS. L. TUCKER & SON-Herewith is a further communication in regard to best mode of pruning and training grapevines, from the same gentleman whose views on that subject were briefly given some weeks since in the Country Gentleman. He says:

"I find I did not then express myself fully, and will try to do so now. I have long observed that fruit produced on a stout young cane, is not only of better size, but ripens earlier and more perfectly than that produced on side-shoots from older wood. On a cane two or more years old, pruned to spurs, you will find the shoot in fruit remains green and immature till very late. Indeed you may find the majority of them green to the base, even after the fruit has been gathered and leaves fallen. Can fruit produced on such wood be perfectly developed and ripened? Decidedly not. They may be pretty well colored, but never can be ripe, for the wood and fruit ripen simultaneously.

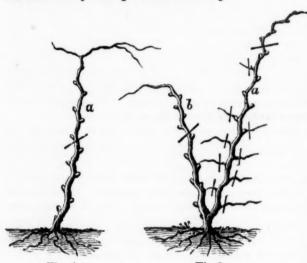


Fig. 1. Fig 2. On the other hand, observe the fruit on a strong

cane of last year's growth that has been allowed full latitude in growing, and that has ripened its wood well. You will find the side-shoots producing fruit, to commence early in fall to turn brown and mature,

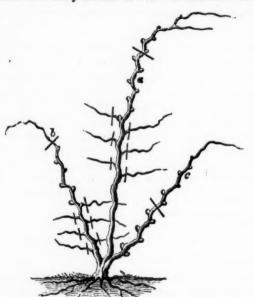


Fig. 3.

newal system, as adopted in America for the last 25 years, provides this wood. But it often happens you do not get canes just where you want them to keep up the system of alternating and growing shoots. Trellises, only 6 or 7 feet high, do not allow sufficient latitude for the free growth of the canes, and they are pinched and stopped too severely. Not that I object to all pinching, but if you pinch in a healthy growing cane to a length of 6 or 7 feet, you will have the buds for the next year's crop burst, and at the same time get a multitude of green side-shoots and laterals, crowding and injuring both tops and roots.



Fig. 4.

To illustrate my ideas of managing a vine: Suppose your young vine, planted last spring, to have made a good growth, you will cut it down close and grow one shoot next year. In the fall of 1864, it will be as in fig. 1, and winter pruned at the cross. In 1865 you fruit that cane and allow it to extend upwards, at same time taking another cane from base. The fall of 1865



Fig. 5.

will show your plant as at fig. 2; prune as represented, and b. will be in the same state as No. 1 last fall; a. you cut off, as indicated, and cut clear out the shoots that have fruited. In 1866 the growth will give you and the fruit also partaking of the same maturity will two canes, fruiting as at fig. 3—that is, you fruit b. on be earlier and finer in every respect. Now all I want the lower portion, and a, on the second portion, of is, to have the fruit produced on such wood. The re course allowing no fruit on that portion of a. that fruit-

ed the previous year. This year you also allow cane c. to grow. The winter pruning is seen by the cross strokes in fig. 3. You may continue for a fourth year, when the summer aspect of the vine would be as in fig. 4; but I would prefer to prune fig. 3 in the fall of 1866, like fig. 5-cutting out a. altogether, and so on, every year pruning out an old cane and encouraging the growth of one new one-never producing fruit except on terminal growths, and never twice on the same portion of a cane. Two stakes, 8 or 9 feet high, to each plant, would answer admirably for this mode of train-F. K. PHŒNIX. ing."

Bloomington, Ill., Nov. 1863.

A Remarkable Cranberry Swamp.

Mr. Wetherell, one of the editors of the Boston Cultivator, gives the following account of the improvement effected by Dr. A. D. Miller, on a worthless swamp in Franklin, about 25 miles from Boston, which he visited on the 25th of Nov. last. Mr. W. says:

Something like ten years since, this swamp was covvered over with a growth of alders, dogwood, white maples, and other swamp shrubs, which covered the ground; they were cleared off, and a ditch cut through the swamp for the brook, which before ran through a very crooked channel. Ditches were then opened from the uplands on each side, which are gravelly and sandy, leading into the main ditch. A dam was constructed across the swamp, which serves the purpose of flowing it and also that of a road to pass across it. In the winter the swamp was usually flowed, and gravel, this being better than sand, was drawn on to the ice and spread. Afterwards it was planted to cranberry cuttings, in drills about 18 inches apart, this, from experience, proving to be a suitable distance apart. How many coverings of gravel have been put on, was not learned; but several, judging from the excavations whence removed.

About 12 or 14 acres of this swamp have been planted; and so favorably is it situated, that it can be covered with water in a little more than an hour's time. The brook is of such capacity, with the aid of a reservoir above the cultivated ground, that the plants can be protected from frost at any season when there is

any danger.

The crop of the past season was about 1,100 barrels, of very nice fruit, and of remarkable size. I brought away a couple of berries, that measured nearly three inches in circumference. The crop was all picked by hand, at a cost of nearly \$2,000. At one time, said Dr. Miller's farmer, 200 persons might have been seen in that swamp picking cranberries. It was a lively scene. After they were gathered, they were taken to the house, where they were sorted, that is to say, the soft berries, after winnowing them, were culled out by women and girls, preparatory to barrelling.

When Dr. Miller first contemplated the cranberry culture of this swamp, he visited Mr. Joseph Breck, the well-known seedsman of North Market-street, Boston, and asked him how to go to work. Mr. Breck said he could not tell him; then he asked him for the best work on cranberry culture. Mr. B. told him he did not know of any he could recommend; then said Dr. Miller, "Can you tell me of a man I can employ that knows something about it?" and Mr. Breck said he could not. "Well," replied Dr. M., "then I will try and see what I can do." The result and the mode of doing it is briefly stated above, as learned from Dr. Miller and Mr. Desmond, his former.

Miller and Mr. Desmond, his farmer.

Dr. M. has informed the writer, since visiting the cranberry swamp, that the fruit has generally been sold so far as it is marketed, at the current price, though some of it was sold for \$15 a barrel. Call the

the snug little sum of \$11,000. The raising out of sight, as the saying is. This beats tobacco

One of the peculiar advantages possessed by Dr. Miller over most of the owners of swamp lands, is, the facility with which he can flow it at all seasons of the year, thus guarding the growing crop from both late spring frosts and early autumn frosts; and besides, gives him the power to destroy insects that sometimes infest the vines. Swamp lands that can be as quickly flowed, and as quickly drained, as Dr. Miller's, cannot be used more profitably than by growing cranberries as it would seem by the Dobtor's experience. It is also easily gravelled in the winter by flowing it.

HEDGES AND THEIR MANAGEMENT.

We observe in a recent Report of the New-York Farmers' Club, that Dr. TRIMBLE stated that "he could not grow a hedge in Newark, N. J., unless he protected it by a fence from stock. An arbor vitæ hedge, which some recommended, is browsed by goats and hooked by cows."

We copy this statement for the purpose of again pointing out the absolute necessity of good cultivation for several years, to insure the success of any hedge. Many adopt the same course as Dr. Trimble, but place the hedge rows so near the fence, that a cultivator cannot be passed between them. As a necessary result, the hedge preventing clean cultivation up to the line of the fence, favors the growth of grass, weeds, burdocks, elders and other bushes, the hedge does not flourish, grows feebly, is uneven or full of gaps, and at the end of ten years, having made no progress towards an efficient barrier, is pronounced by the owner, together with all other hedges, "a perfect humbug." In travelling through the State of New-York, and through many portions of the West, there is not one hedge in twenty that has been better managed, and consequently scattered bushes of the Osage Orange, from a foot to three feet high, and scattered along at various distances from one to ten feet apart, are seen in every direction. "The arbor vita hedge," says Dr. T., "is browsed by goats and hooked by cows." Of course they can never succeed with such treatment, and the owners might as well have planted them in the middle of a beaten highway.

The only good way to make a good hedge is the cheapest way. This is to plant them secure from the attacks of any animals, and where a broad strip, say five or six feet wide, can be kept constantly cultivated on each side. We have now such hedges planted near the line of a tile-drain, so as to render the plants hardy for winter, that are only four years of age, and yet they form a perfect barrier against all common farm animals. Their whole cost has not been fifty cents a rod. "But," said a friend, "do you recommend the Osage Orange for hedges?" "No," we replied, "we recommend no plant whatever for hedges!" "Why, you have been successful?" "Yes, but we cannot induce one man in a hundred to give them proper attention, and they will consequently be pronounced impositions and failures."

Window Gardening in Denmark.

Graves' recent "Cruise in the Baltic," tells us :- In Copenhagen every window is filled with pretty flower pots, in which Roses, Pinks and Fuchsias seem to thrive to perfection. These beautiful plants give a neat effect to the fronts of the houses, and tell the passing stranger of the deeply rooted love of flowers which forms part of the average price \$10 a barrel, and 1,100 barrels will bring national character of the Danes, as well as of the Swedes.

EXPERIMENTS ON NON-SWARMING.

! Mr. C. Campbell, who resides about two miles south of the village of Henrietta, built a small bee-house sufficient to accommodate three swarms of bees. He put a roof on the same, and covered the outside with matched boards, and laid the floor, ceiled it overhead and on the sides with the same, leaving a dead-air space between the outside and inside ceiling of two inches. He put a door on the back-side, and made two partitions of inch boards on the inside in front, running from the ceiling overhead to the floor, forming three hives. He put a tube through about sixteen inches from the top, for the bees' egress and ingress—with doors covering each hive from the ceiling overhead to within six inches of the floor.

In the year 1831, he put in a swarm of bees that have remained from that time to the present, without showing any disposition to swarm, and they have not filled more than one-third of the hive with comb. He said that, as near as he could judge without weighing, he took from the hive from fifty to seventy-five pounds annually, excepting one when year he was advised to trim the brood-comb closely, which he did, and the result was that he obtained but little honey that season. Ever afterwards he abandoned trimming the brood-combs. Honey was deposited back of these brood-combs, and was cut off the same annually.

Those who advocate that it is necessary that the broodcombs should be removed as often as once in two years after swarming, or trimming them every season, will find a hard question to solve when it has proved that their comb was kept healthy, and the bees have done well for over thirty years, with no apparent diminution in the life of the bees. It will be also for the consideration of the advocates for destroying the queen every three years, and to give them a young queen, or the inand-in breeding of bees. Mr. C. had but one swarm, and there was no bees kept within a considerable distance. The swarm must have renewed their queen some eight or ten times. It is probable that they reared queens nearly every season, and not having a disposition to swarm, they retained the young queen in cell a quacking until she had obtained sufficient strength for the queen combat, in which the young queen would prove victorious from the instincts of nature.

Size of Bee-Hives.

Mr. J. HAZEN, in an article in the Co. GENT., (page 351 of the present vol.,) thinks that a hive that contains 1,600 cubic inches in the brood apartment is the best. Mr. H. will find that in a non-swarming hive of such dimensions he would not be able to winter one-half of the bees remaining in the fall that it would require to gather 125 lbs. of surplus honey, and would endanger the whole colony by so crowding them. The hive the Rev. Mr. Dierzon of Germany, uses (one of the best managers of bees on the Eastern Continent,) is constructed 27 inches long, 8% inches wide on the inside, containing about 3,050 cubic inches. He takes the surplus honey from each end of the hive, and uses bars for the bees to attach their comb. The Rev. Mr. Langstroth is considered one of the best bee-keepers extant in this country; his hive contains about 2,550 cubic inches, with a place for nine surplus honey boxes on the top. Mr. Metcalf, a strict observer of the wants of the honey-bee as to the size of the hive, constructs his so as to contain about 2,450 cubic inches in the body of the hive, with boxes placed on the top for surplus honey. There is used in the above, hives frames or bars. observations and experiments of these gentlemen with hives best calculated to make the bees most profitable, are entitled to due consideration. ELIHU KIRBY.

Henrietta, Dec., 1863.

TWO EXTRA MILKERS.

MESSRS. EDITORS—The cows noticed in the "COUNTRY GENTLEMAN" of the 26th Nov. as having produced large quantities of milk, must "clear the track," in order that I may "trot out" two Dutch heifers imported and now owned by myself.

These heifers were imported in the autumn of 1861, and were four years old last spring. One of them dropped a heifer calf on the 2d day of last April, that weighed at birth 92 pounds, and during the month of June following, a record of the cow's milk was carefully kept, showing a result of 1704½ pounds for the month, or an average of 56.81 pounds per day. The first six days in June she gave an average of 59.04 pounds per day, and on four respective days during the month she gave 60.50 pounds per day.

The other heifer dropped a bull calf on the 26th day of last August, that weighed at birth 110 pounds, and a record of this cow's milk was kept from the 3d to the 9th day of September inclusive, showing a yield of 338½ pounds, or an average of 48.39 pounds per day. The calf of this cow was weaned when two days old, and fed upon a portion of the mother's milk until he was 80 days old, when his weight was found to be 350 pounds, a gain of 240 pounds in 80 days, or just three pounds per day. And this without an ounce of grain of any kind.

Highland Stock Farm, Belmont, Mass. W. W. CHENERY.

ABORTION IN COWS.

I think the Committee that was appointed in Herkimer county, in your State, to investigate the subject or cause of abortion in cows, reported that stanchions were not in their opinion the cause of that afflicting disorder among cows; but an individual correspondent, (I think from Canada,) says he knows they are. Now if he has proof positive, would it not be well to state cause and effect, that his brother farmers may be able to steer clear of the difficulty? I had one cow drop her calf too soon last spring, (and it was the only one I ever had,) and I am satisfied that stanchions were the cause of it; but I will state what led me to this conclusion. We all know that it is natural for a horse to get up (when lying down) on his fore-feet first, and a cow and other neat cattle on their hind feet first. I noticed all winter that this heifer rose up different from every cow in the stalls, causing, as I thought at the time, a bad strain by pulling on the stanchions with her horns, causing her hind feet to slip under her, (not because the floor was wet, for it was perfectly dry all winter,) but from a natural consequence, while the other cows thrust their heads farther into the mangers by rising on their hind feet first. Now this heifer was tied one winter to a manger with a rope, before the new barn was built, and she learned to get up fore-feet first, to avoid thrusting her head against the manger, as all the other cows did, and I thought she was wise; but her wisdom in one place is bad reasoning in another, like that of some of the human family.

Now I do not condemn the stanchions for one cow making a bad use of them, while the ninety and nine go not astray, but shall put her back to a manger without stanchions, and put another in her place, for I do think stanchions properly put up, are the very best thing to keep cows clean. L. F. Scott. Bethlehem, Conn.

Never do that in prosperity whereof you may repent in adversity.

BUILDING AND FILLING ICE-HOUSES.

Cheap ones may be quickly constructed, in the form of strong board shanties, (fig. 1,) with a good but not tight floor. Place a few inches



the structure of ice is Fig. 1.—Rough or Shanty Ice-House, built upwards. Cover the left open under the eaves for ventllation. whole with 8 or 10 inches

of sawdust, and let plenty of fresh air blow through the shanty over the top. Ice will keep in this way as well as in the most costly and elaborate building. Chaff or finely cut straw may be substituted for the sawdust; but being



less perfect non-conductors, should be in thicker layers. Ice-houses built of boards with double walls, (fig. 3,) filled in with sawdust, although they do not keep ice better than those just described,

of sawdust on the floor, pile up the ice compactly

in square blocks, leaving a

space of 8 to 12 inches all around, next to the

boards, to be filled with

sawdust, trodden in, as

Fig. 2.—Plan of Single Wall or Board save some labor by obviating the removal of the sawdust every time they are filled with ice. But even these should have a thin stratum of sawdust, say three or four inches, between the walls and the ice, which should be filled in and pressed hard as each layer is laid. The accompanying plans and views show



Fig. 3.—Ice-House above Ground. One door is enough for common sized Houses.

the construction of these buildings. It will be seen in the view of the double walled house, that a large ventilating window is placed in each end at the top; these



Fig. 4.—Plan of Double-Wall Board Ice-House,

windows should always be open. There are two double doors at one end in large building, and one in small one—these are for filling and taking the ice out at different heights. Care should be taken that all the sawdust be pressed solid, and

no cavities left. An ice-house with one apartment, 8 by 10 feet, and 6 feet high, (including a foot of sawdust all around,) will keep ice enough for a moderate family.

"My Farm of Edgewood," as we learn from the publisher, Mr. Scribner, has already reached its eighth edition. This is one instance, at least, of well deserved popularity—for "My Farm" is a book of views as sound and aims as high, as it is charming in execution.

TUMOR ON A COW'S FACE.

In answer to the inquiry of C. S. R., who has a five year old cow which he is trying to fatten, and upon which a tumor has made its appearance "below the eye," and I suppose at the usual place, at or near the angle of the jaw, I would say that it is very much to be desired that some competent veterinarian should publish a statement of the cause, nature, and proper treatment of this quite common disorder. Such a statement has been frequently called for, but has not yet been furnished, so far as I know.

The occurrence of these tumors, often erroneously called "bone-wens," is common. The cause undoubtedly is often a blow or a bruise; sometimes the disease called "dilatation of the jawbone," but this rarely I imagine, and in the cases that have occurred with me no cause could be discovered. I communicated to the Country Gentleman some years ago, memoranda on the subject, and from what I have seen of the disorder I conclude:

1. That these tumors are of little consequence, except in the case of valuable breeding stock, since they do not interfere with the fattening of the animal, unless so far advanced as to have broken and begun to suppurate.

2. That strong caustic applications are of little or no use in treating them; and that iodine has little or no effect upon them, whether applied externally or given internally. This would seem to show that the tumors are not glandular enlargements.

3. That they will frequently disappear as suddenly and unaccountably as they came.

4. That a simple though laborious and safe remedy, the only one with which I succeeded in effecting a permanent cure, leaving no trace of the disease, is thorough long continued rubbing with the hands and with a smooth round stick, applying at the same time good old soft soap. Whether the rubbing or the soap does the business I do not know, but I found the combination very effectual.

This is all I can tell C. S. R from my own experience. I had one case where the tumor began to discharge, owing to the caustic applications that I had been persuaded to try. The animal was being fed, and was doing very well. I stopped the discharge after a little time by injecting dilute nitric acid, and there was no return of it. I think that in such cases, and indeed in most cases where the tumor did not seem to yield to milder remedies, the veterinary surgeon would use the lancet, but as to this I am not qualified to advise.

On looking over my file I find that the memoranda above alluded to were published in the Country Gentleman of April 4, 1861. The case in which I succeeded in effecting a cure occurred since that time, and as the animal was of considerable value, the treatment was thorough and persistent. I notice in the Country Gentleman for April 25, 1861, an article on the same subject by your valuable contributor, Mr. S. E. Todd. The cases that Mr. Todd mentions, however, appear to have involved either injury to or disease of the jaw-bone. In no case that has come under my eye has there appeared to be any such injury or disease, although the tumor in every case that I have seen has appeared to be fast to the jaw-bone—but of course it might merely be so lightly held against the jaw as to seem to be fastened to it. Such cases appear to be plainly described, and the proper treatment also, in Dr. Dadd's book, pp. 250 and 253.



ALBANY, N. Y., JANUARY, 1864.

The Report of the Commissioner of Agriculture for 1863, as submitted to the President, is at hand, in pamphlet form, 13 pp. After referring to the estimated crops of the country for 1862 and 1863, which we have already noticed at length editorially, together with the increased immigration of the past year, which nearly doubles that of 1862-the Commissioner discusses the probable openings for agricultural enterprise in the South when peace is established, alluding especially to the capabilities and attractions of Virginia lands.

He then proceeds to give an account of the "labors and expenditures of the Department during the past year." The former consist chiefly in the collection of Agricultural returns from about two thousand correspondents, which form the basis of the estimates above mentioned; in distributing "over the country, with a lavish hand, several hundred bushels of choice wheat and other cereal grains, and several thousand dollars' worth of the most valuable seeds for field and garden culture, including a large collection of flower seeds, as imported from abroad, together with an assortment of the choicest varieties of the most desirable grains and vegetables grown in our own country;" in procuring about 1,500 bushels of cotton seed for Western farmers; in sending out vines, bulbs, cuttings and plants from the experimental garden; in opening a wide correspondence as to vineyard culture, and in making arrangements for a collection of entomological specimens. Congress having at its last session, appropriated "\$20,000 for investigations to test the practicability of cultivating and preparing flax and hemp as a substitute for cotton," a commission was appointed to make investigations, consisting of Hon. J. K. Morehead of Pennsylvania, W. M. Bailey of Providence, and Dr. J. M. Warder of Cincinnati. Nothing farther has yet been done, and the appropriation is still unexpended.

The Commissioner urges that a modification of the postage law be made, so that he may receive communications, specimens, &c., from correspondents of the Department without advance payment; that specimen orchards* of the best fruits" should be established, "in order to illustrate the best of culture, and arrive at a correct knowledge of the nomenclature of varieties of fruits;" that a botanical collection and museum should be founded (which is very appropriate and proper;) that the glass conservatories and propagating-houses should be extended; also the propagating garden; that larger and more convenient apartments should be assigned to the Department, and, above all, that "an increased appropriation for the next fiscal year" should be voted.

"The balance of the appropriation for the fiscal year ending June 30, 1863, remaining unexpended on the

31st Dec., 1862, was \$25,675.98; deficiency appropriation, March 3, 1863, chap. 79, \$20,000. The amount appropriated for the fiscal year ending June 30, 1864, is \$95,000—February 25, 1863, chap. 59. The exis \$95,000—February 25, 1863, chap. 59. The expenditures from the 31st December, 1862, to the 30th November, 1863, for all purposes, amount to \$87,792.96, leaving an unexpended balance of the appropriation for the fiscal year ending June 30, 1864, of \$52,883.02. The whole number of packages of seeds, cereals, &c., distributed, is about 1,200,000. Of these, over half a million were sent or given directly to those applying for them. About 300,000 were distributed to members of Congress, and over 300,000 to agricultural societies. About 40,000 were quart packages of wheat and other cereal grains; about 950,000 garden and flower seeds; about 120,000 tobacco seed, and the remainder cotton, flax, &c. During the year there have been distributed from the garden of the Department about 25,750 articles, comprising vines, bulbs, cuttings, and plants. About one-half of these were distributed through members of Congress; the remainder has been sent for dissemination by agricultural and other rural associa-

DEATH OF COL. ROTCH.—A private letter from a friend and college classmate of the lamented F. M. ROTCH, received since our last, speaks of his death as "a loss to society, a loss to the State, a loss to the cause of agriculture. He was a graduate of Harvard in 1841. His talents were varied, and of more than the common order. His knowledge of chemistry was very extensive. As an analytical chemist, he had few if any superiors. His skill with the pencil was unsurpassed by any amateur I have ever met, and the portfolio of sketches taken during his European travels, is admitted by the most competent judges to be the most perfect they have ever seen. In matters relating to Agriculture, he was an authority. * * Yet with talents and accomplishments which made him popular, he was one of the most modest and unpretending of men. 'It was in the domestic circle that he particularly shone. He endeared himself to his friends most closely, and the news of his death fell upon other hearts than those of the family at 'The Grove' with stunning effect."

At a Special Meeting of the Board of Managers of the Otsego County Agricultural Society, held on the 7th day of December, 1863, the following resolutions were adopted:

Whereas, This Society have heard with deep and sincere sor row of the death of their late esteemed associate and former President, the Hon. Francis M. Rotch, therefore Resolved, That the many estimable qualities for which our friend was ever noted, had won for him the love and regard of all who were connected with him in social or business relations; and that in his death we mourn the loss of an enlightened and distinguished Agriculturist, a gentleman of refined and discriminating tastes, and a genial and smiable companion and friend.

Resolved, That we offer to the members of his bereaved household our heartfelt sympathies in this sad bereavement; and that a copy of these resolutions be sent to the family of the deceased, and be published in the Freeman's Journal, Otsego Republican, and Country Gentleman.

H. M. Hooker, See'y.

Cooperstown, Dec. 8, 1863.

At the Annual Meeting, Dec. 2, of the Worcester North, Massachusetts, Agricultural Society, the following gentlemen were chosen officers for the year ensuing, viz;

President—Ohio Whitney, Jr. of Ashburnham.
Vice Presidents—Jonas A. Marshall and George E. Towne of
Fitchburg,

Treasurer-Thomas C. Caldwell of Fitchburg. Secretary-Lewis H. Bradford of Fitchburg.

The Treasurer's report showed that the funds now on hand amounted to \$4961.95, and that forty-one new members had joined the Society, and that the gain in the

^{*}An admirable suggestion! We may add however, that "specimen" breeding farms are equally required, "to illustrate the best modes" of raising horses, cattle, sheep and swine; that a "specimen" dairy farm or two, including cheese factories, butter cellars, &c., would aid in completing the programme; and that if fresh milch cows and an extensive vegetable garden can also be conveniently appended, it may promote the health of members of Congress, and the general progress of agriculture, in a most gratifying manner. Eds.

finances were \$331.64 the past year. The former Secretary of the Society, W. G. WYMAN, Esq., has lately sailed for California, with a view both to the restoration of his health, which was somewhat impaired, and for a personal inspection of the agricultural resources and capabilities of that State.

A meeting of the Trustees of the "People's College," located at Havana, Schuyler county, was held at Albany, Nov. 10th. A paper was read before the Board by the President and ordered published, a copy of which we received two or three weeks since. It is devoted to an exposition of the objects and claims of the institution-a programme which we shall not attempt to criticize; although, in so far as it proposes to include "Agriculture" in its course of studies, and by so doing secured the passage of a law last winter appropriating for its purposes the National Land Grant to this State, its designs fairly challenge the examination of all who are interested in the proper application of this important fund. The following Professors have been already appointed :-

AMOS BROWN, LL. D.. President and Professor of Intellectual and
Moral Philosophy.

F. G. Hibbard, D. D., Professor of Natural and Revealed Theology.
TIMOTHY H. PORTER, A. M., Professor of English Literature, Rhetoric
and Oratory.

WILLIAM W. FOLWELL, A. M., Professor of Ancient Languages.
JOHN H. GRISCOM, M. D., Professor of Anatomy, Physiology and Hygiene.

giene.
George F. Barker, Ph. B., Professor of Chemistry.
JOHN PHIN, Ph. B., Professor of Agriculture.
FREDERICK A. BARTON, A. M., Professor of Military Science and
Tactics.

The College farm consists of about 200 acres, upon which and the edifice nearly \$100,000 have been expended. The estimated cost of the college edifice is \$175,000.

A sufficient answer to the page of special pleading in the last Genesee Farmer, to prove that that paper is the "oldest agricultural journal in America," may be found in the fact that the original publishers of that journal did not claim that it was a continuation of our old GENESEE FARMER. The first and second volumes for 1840 and 1841, of the "New Genesee Farmer," of which Mr. HARRIS' paper is a continuation, are before us, and they are numbered "Vol. I." and "Vol. II.," showing conclusively that its proprietors and editors regarded the "New Genesee Farmer" in accordance with its title, as wholly a "new" and separate concern, and not as a continuation of our Genesee Farmer. Not having a complete file of that paper, we are unable to say when or by whom our nine years' labors were first added to the age of the "New Genesee Farmer," so as to make it appear to be the "oldest agricultural paper in America," but it is our impression that it is only within a very tew years past, and since the real circumstances of the case might be presumed to have escaped the memory of the public, that this claim has been so pertinaciously and groundlessly advanced.

OSWEGO COUNTY AGRICULTURAL SOCIETY .- Our late annual fair was very successful. For prudential reasons, growing out of the war excitement, this Society did not hold a fair in 1862. The weather was fine; the display of horses, cattle, sheep, and swine, were fine. The fruit, flowers, and vegetables, were never better. The dairy department was represented by some mammoth factorycheese and a choice display of butter, while the large amount of domestic articles gave good evidence of the proverbial industry of the ladies. The receipts were \$1,150. This, considering that there are three town organizations in the county, was one of our most successful fairs. One of the novelties of the exhibition, was three elderly ladies spinning flax, one of them 82 years thought by some that the apples of wayne count more money than the wheat crop.

I fed about 200 bushels of sour apples to my last autumn and winter, and was so well pleased am repeating the experiment this season, and will by some that the apples of wayne count more money than the wheat crop.

I fed about 200 bushels of sour apples to my last autumn and winter, and was so well pleased am repeating the experiment this season, and will be a spinning flax, one of them 82 years by and by. Stlvester.

old, while another spun two threads at once. minded us of olden times, when every young lady was taught some kind of useful handiwork, which made her self-sustaining, and not a drone in the hive of the bodypolitic. HIRAM WALKER. Mexico, Nov., 1863.

Two KINDS OF BLUE GRASS .- We have just received from our correspondent, WATSON NEWBOLD of Burlington county, New Jersey, specimens of two species of grass, on which he makes the following remarks: "My object in sending them is, that I have observed among intelligent agriculturists that the green grass is often called blue grass, and not only so in New-Jersey and Pennsylvania, but likewise in Kentucky where the Kentucky Blue grass abounds more frequently, and Cassius M. Clay has written me that they are one and identical, and so pronounced by J. J. Thomas; and I also, when in Kentucky a few years ago, around Lexington, Frankfort, Paris, Louisville, &c., had the green grass pointed out to me by graziers there as the genuine Blue grass, when it was not so."

The specimens sent are the Poa compressa, or Blue

Grass of the Eastern States, also called Wire grass and Flat-stalk meadow grass; and the Poa pratensis, or the Blue Grass of Kentucky, also called green grass, spear grass and June grass at various portions of the East. The luxuriant growth which the latter assumes on the rich soil of Kentucky, has led many to suppose it to be distinct from the same plant in its feeble growth at the East. The Poa compressa or Eastern Blue Grass is too small a plant for any purpose, except pasturing. It affords rich, but not abundant food for grazing. The specimens sent by our correspondent are only a foot high, while those of the P. pratensis are two and a half to three feet high. We think the only error that our correspondent has fallen into is in supposing that the Eastern Blue Grass and the Blue Grass which is so highly esteemed in Kentucky are They are readily distinguished by the flat stem identical. and bluish cast of the former, and the round stem and fine spider-web or cotton appearance on the lower part of the chaff of the latter.

OUR PUBLICATIONS.—A subscriber of the COUNTRA GENTLEMAN writes from Connecticut:—"If you will send me a copy of the Cultivator I can probably get you some new subscribers. I have never seen it, but I think it will take well; I have already obtained two subscribers by describing it. I think very highly of the COUNTRY GENTLEMAN, and consider a copy of it worth as much as a number of any of the Horticultural monthlies that I take. Your paper has a more valuable correspondence than any other of the kind that I know of. You certainly do your part to make a good paper, and your subscribers ought to do their part in circulating it. There is a straight-forward honesty and principle about the Country GENTLEMAN, that is known and read of all men. I may not be able to get many subscribers, but can get some here, and may get some in towns near by, as I am about. You will probably hear from me about the first of Janu-

APPLE CROP OF WAYNE COUNTY .- The apple crop, which is to go forward this fall, has left, and our public square, streets, and wharves, which a few days since were piled three tiers high with apples barreled, now look natural again. The prices paid have ranged from \$1.25 to \$2.10 per barrel, the purchaser furnishing the barrel. The crop has been nearly an average one, and the prices have brought it to market, though there are many thousand barrels which will not leave here until spring. It is thought by some that the apples of Wayne county bring

I fed about 200 bushels of sour apples to my horses last autumn and winter, and was so well pleased that I am repeating the experiment this season, and will report

CULTURE OF CHICCORY.

In the Co. Gent. for Dec. 3d, is an article from a correspondent of the Ohio Farmer, on the culture of this plant. His remarks are mostly true. He says: "being perfectly hardy, it will produce a succession of crops without farther seeding," and he has left the small plants in the bed for another year. It is the first year of culture with him, or he would advise differently. The plant is perennial, and not only will the entire plants live and grow, but fragments of the root of a few inches will do the same. In this rests the chief difficulty with the plant. The second year these plants run to seed, and the roots, though enlarged, become hollow and woody, and have little value for coffee.

Buy your seed rather than raise it; sow your bed each year in a new place, and where you can, by after culture the next year, destroy all that remains. Once established in a hedgerow it becomes a weed difficult to eradicate. We consider it as the best of all the substitutes for or additions to coffee.

T. S. G.

In a private note accompanying the above the writer says: "I have raised it in a small way for a dozen years, and like it as an addition to pure coffee."

An Experiment in Manuring for Wheat.

EDS. Co. GENT.—In preparing my ground for wheat in the fall of 1862, I tried an experiment in manuring which I will relate for the benefit of those it may concern. The ground was a fallow and a gravelly soil—a large part was manured by top-dressing with well-rotted manure after the last plowing; about two acres was manured before the last plowing, the manure being plowed in. Then all was harrowed before sowing, and the wheat was drilled in at the rate of 1½ bushels per acre. The result was that where the manure was plowed in the wheat was decidedly the best, so much so that one of my neighbors who cut it for me with one of Kirby's reaping machines, said it was the stoutest wheat he had worked in during the season.

I think the result was not such as writers on the subject generally expect, as top-dressing wheat seems to be the advice given by most persons when it refers to raising wheat. I am willing to say that such a result was not anticipated by me at the time; if it had been, I should have managed differently, as I manured only about one-quarter of the piece in that way. The ground being light and warm, it was not rolled into the bottom of the furrow and covered deep, but merely rolled between the furrows, so that when harrowed in it was not very deeply covered, but probably better mixed with the soil than when it was harrowed only.

Now I wish to know if such results are common with farmers on such soils, or is this an accidental occurrence, which would not be likely to occur again under the same mode of treatment. From what I have observed in this experiment I should prefer to manure before the last plowing, so that with the plow and harrow both it would be better mixed with the surface soil than it would by the harrow alone, thereby getting a better crop in return, especially on a light gravelly soil. How it might prove in a clay soil I do not know; perhaps the result might be different. The early part of last winter was unusually hard on wheat, as the ground was frozen hard, with little or no snow, and when snow came the wheat on the ground looked unusually brown and withered.

J. TALCOTT.

INDIAN CORN AS A FODDER CROP

Your correspondent, Mr. Clarke, from Wisconsin, seems highly pleased with his first attempt to raise corn for fodder, and indeed the only wonder is that no more of this kind of winter food is raised, especially by our Eastern farmers, where hay now is worth anywhere from \$12 to \$20 per ton at the barn. One really does not know what amount of good winter feed may be obtained from an acre of good strong soil in this way, until he has made the trial. The manner of sowing and cultivating has been so often published in the Gentleman and Cultivator, that I shall not ask space to reiterate it.

But one suggestion which has occurred to me, pertaining to this subject, is this: Why may it not be grown on soils of only a medium quality to advantage, by using for seed the Southern or Dent corn, which if on strong soils, we know will grow so rank and stout as to render the fodder nearly worthless. A slight experience I had in reference to this, some years since, went to prove to me that this course could be advantageously taken. Have other of the readers of the GENTLEMAN practiced this course?

Salisbury, Conn. WM. J. PETTEE.

A GOOD WAY FOR CURING BEANS.

Messrs. Editors—I have read in the agricultural papers, of different ways for curing beans, but the following I have *tried*, and found to be successful. It is easy, convenient and effectual.

The past season I raised a considerable quantity of beans in a field of corn; and as is usually the case on a good soil, they were very productive of vines, which were quite green when gathered, thus rendering the process of curing more difficult.

When harvested, strong stakes were firmly inserted in the ground, and small stones, or anything of like character placed at the foot to keep the vines from the dirt, and afford the air a free passage underneath.

The stacking was commenced by placing a large handful, with the roots just passing by the stake, and the tops running outward; the second was placed at right angles with the first, the roots overlaying the stalks of the other; the third and fourth in like manner, which constituted the first layer; and this process was repeated until the stack was raised to a desirable height, say six or eight feet. In the course of ten days or a fortnight, they were found to be sufficiently dry to convey to the barn, and were easily loaded by tipping the stacks over, and placing them whole upon the cart, taking three or four at a time, and were set upright along the floor where they were left for several weeks.

When thrashed they were perfectly dry, requiring but little assorting to be a prime article for market.

East Franklin, Vt.

E. R. TOWLE.

WATER PROOF BOOTS AND SHOES.

Take three ounces of spermaceti and melt in an earthen vessel over a slow fire; add thereto six drachms of India rubber, cut in slices, and these will presently dissolve; then add of tallow eight ounces; hog's lard two ounces; amber varnish four ounces; mix, and it will be fit for use immediately. The boots or other materials to be treated, are to receive two or three coats with a common blacking brush, and a fine polish is the result.

A SAMPLE OF NEW-JERSEY FARMING.

An esteemed correspondent who was a member this season of the Committee of the Burlington Co. (N. J.) Agricultural Society on Farms and Farm Buildings, kindly sends to the Country Gentleman the statement of the Premium Farm—both as to products and receipts, and also as to the capital invested and profit returned. We had the pleasure of calling upon the proprietors of this farm when in New-Jersey last summer, and, in their absence from home, could do little more than note the fine condition of the grazing stock then at pasture, and the convenient arrangement and large capacity of the farm buildings. Below is the statement alluded to:—

Statement of Products of our "Shreve Farm" for the last year. Number of acres, 248, exclusive of wood land pasture of 20 acres.

acres.	der co, 2	no, caronio	ice of the	ou tund p	caccar o cy
220 tons of	hav. at &	14.			\$3,080,00
900 bushel	s white Ke	ntucky wh	eat, at \$1.	75,	
300 bushel	s potatoes	at 50 cents			150.00
1.800 bush	els corn. al	. 75 cents.	4		
Annles.	cio corris a	10 0011401.			
60 head of	beef cattl	e. \$70.			4,250.00
75 sheep.	at. \$4.50.	0, 410,1111			337.50
75 lambs.	at #4.50				
280 lbs. we	ol, at 70 ct	a.			
12,000 lbs.	pork, at #6				
Poultry	por,	,,			
1 voke of	at cattle				250.00
do.	n 60 head	of fat cattl	e, at \$38,		337.50
Advance	n 60 head	of fat catti	e, at \$35,	*********	22,100,00
do.	n 75 shoon	1 40 44.001.	********		
980 lbs of	wool at 70	cta.			
					400.0
50 tons ha	v sold, \$14.		*********		700.00
					40.00
600 bushel	s corn at 7	5 cts			450.00
840 bushel	Kentucky	white wh	eat, at \$1.7	for seed.)	1,470.00
Tota					46 018 50

We would say to the committee, that we keep only two pair of work horses, and one yoke of working oxen, to do the work of this farm.

J. & S. BUTTERWORTH.

The committee remark:—"Although the above statement is all that is required by the regulations of the Society, governing the award of premiums, the committee thought it might add interest to their report, by showing that capital may be profitably invested in well managed Burlington county farms. They have therefore obtained from the Messrs. Butterworth, the following additional information, showing the cost of the farm, its expenses for one year, and the interest received:"

Value of farm of 268 acres, at \$125 per acre,	\$33,500.00
4 horses at \$125 each,	
1 pair of oxen	140.00
60 neat cattle, \$32 each,	1,929,40
75 sheep, \$3.50 each,	262,50
50 swine, \$5 each,	250,00
Poultry	40,00
Labor employed and board of men,	1,150,00
Farm implements,	661,00
Seeds (seed wheat deducted from not profits)	
Wear and tear of buildings, fences and implements,	
Fertilizers purchased (500 bushels lime, at 14 cts.,	
Taxes,	150.00

Capital invested in farm and working material for one year, \$39,152.50

Net profit as stated above. \$6,948.50

Being 17 and 3-tenths per cent on the investment. 800 tons of marl are used annually, but as this is dug on the farm, it is not included in the expense account.

The cost of digging it is in the account.

Grape Culture.—Hovey's Magazine says: "All who have witnessed our exhibitions of grapes the last few years, must have been struck with their inferiority as compared with those produced fifteen or twenty years ago. That grape culture has become much more extended is certainly true, but corresponding excellence has not been maintained. Our grape growers must do better if they would hold their reputation as good cultivators."

Inquiries and Answers.

The Cultivator.—Dr. Wombaugh, Nashville, Tenn. The first four volumes of The Cultivator mentioned by you, conducted by Judge Buel in connection with a committee of the State Agricultural Society, constitute a part of the first series, as still continued by us. We can supply you with the remaining six vols. of the first series, for \$6. We also have one set of the second series for sale, slightly worn, but in good order otherwise, 9 vols., price \$10. To these we can add such vols. of the third series as you do not already possess at 75 cents each—the whole to be sent by express at your expense.

U. S. License.—Must a farmer procure a license before he has a right to get his wheat (his own raising) made into flour, and sell the same at retail? C. H. [The farmer can get his wheat made into flour; but he requires a license to sell it at retail.]

Soiling Cattle.-Will you be kind enough to give me your views respecting the system of soiling, whether it would pay to adopt it entirely on a farm of one hundred acres, and also the additional number of cattle that may be thus kept? A SUBSCRIBER. Germantown, Pu. [So general a question as this can only receive an answer in the most general terms; the system of soiling may be most advantageously adopted in the vicinity of cities, and where labor may readily be had at the time it is wanted. But if the advantages of soiling are not sufficiently clear in a given case to warrant its introduction as a system, our advice would be to make a partial trial of it, by raising more and more green food from year to year, according to the land at liberty and the assistance at hand, and thus test practically its adaptedness to the wants of the case. There is no subject in which greater interest is now taken than this, and we should really be under obligations if our correspondents could contribute the results of their latest experiences. The increase in the stock that may be kept, must vary so much with circumstances as to preclude an answer on this point everywhere applicable. What increase have our readers been able to make ?]

The Annual Register Bound.—S. R., Charlestown, Mass. We have the Annual Register of Rural Affairs for 1864 bound in muslin—price 50 cts. Also most of the previous years bound separately, and sent by mail post-paid at the same price.

Honey-Producing Plants.—I should like to see in the columns of your very valuable paper, a list of the trees, shrubs, and flowers from which the honey-bee gathers its stores—not honey-producing trees, shrubs, and flowers indiscriminately, for there are many that are rich in honied nectar from which the honey-bee cannot extract the rich treasure, such as red clover, trumpet-creeper, &c. Such a list would be of great service to me, and to other apiarians who wish to cultivate the beautiful and the useful in combination. Dr. Wombaugh. Nashville, Tenn. [Will some of our Apiarians furnish the desired list?]

Saw Mills.—A correspondent wishes plans for constructing a portable saw mill for slitting palings, sled runners, &c. Also for a cross-cut saw for sawing logs into stove lengths.

Shares' Harrow.—Can you inform me where I can purchase a "Shares' Harrow?" Do you think it efficacious? G. w. C. Caseyville, Ky. [It is a most excellent implement—liked, so far as we have heard, by all who have used it. It was formerly manufactured largely in this city by a firm who have discontinued business, and we are unable to say where it can now be procured.]

Patent Office.—Who is the present Commissioner of Patents, and has the Patent Office Report been issued? c. H. [Hon. D. P. Holloway is the Commissioner of the

Patent Office. Whether his Report for last year has been published, we are unable to say.]

Pulverized Stone.—What effect would pulverized stones, such as lie about the fields, have on the various crops grown, such as wheat, rye, oats, corn, buckwheat, grass, &c.? L. P. L. Tioga Co. [The soil is supposed to be the result of the pulverization of stone by the hand of Nature, and we think our correspondent will find it best to leave this process to her, and confine himself to the thorough pulverization of the land by careful culture, which is quite sure to exert a very beneficial "effect on the various crops grown."]

Gypsum.—If the two are comparable, what is the relative value of barn-yard manure and gypsum? Gypsum costs in Cincinnati over \$16 a ton, for which one can buy six or eight tons of barn-yard manure. At these prices, which is the cheaper? Or are they so dissimilar that no comparison can be made? M. E. C. [The comparison can only be made by trial under the various conditions of the locality and climate. Our advice would be, however, to use neither to the exclusion of

Superstition.—Why are farmers more inclined to superstition than mechanics and professional men? L. P. L. Tioga Co. [Before undertaking to explain this fact, its being a fact would have to be proved. Farmers are by no means peculiar in entertaining superstitious notions, for every pursuit has more or less "traditionary lore," out of which such ideas mainly spring, and as farmers are a little apt to cling to the ways of their fathers in all things, and have to deal more with the uncertainties of weather, &c., than men of other occupations, it would not be strange if they acquired some conceptions unsupported by anything but the fact that their ancestors before them had believed the same things.]

Sheep.—Which are the two best breeds of sheep in the world now, known to breeders, one fine and one coarse? L. Berkshire Hill. [Of fine wool sheep we have no doubt our correspondent can procure Merinos of a high grade among the farmers of Western New-York which will answer for practical purposes as well as any sheep in the world, Of coarse or middle wool there is a wide variety to select from, and he will find the merits of South-Downs, Leicesters, Cotswolds, &c., quite fully discussed, with illustrations, in the back numbers of this paper.]

Reapers.—I expect to purchase a reaper and mower combined. Can you tell me what make is mostly approved by the farming community? w. B. Benton Co., Iowa. [There are several good machines, between which it would be difficult to choose. Some prefer one and some another.]

Diaries.—Have you any blank diaries on hand, and how much do they cost? J. R. M. Purke Co., Ind. [The booksellers here, and we presume generally throughout the country, keep them of various sizes and prices, from 25 cents to \$2.]

Flax.—As there have been many small patches of flax raised in this town, I would inquire where is there a good market for dew rotted flax? How should it be prepared for market—by breaking, hatcheling off the seed ends and scutching, as was practiced 30 years ago, or otherwise? and what price is it worth. A. T. w. Ontario, N. Y.

BONE DUST.—In applying bone dust to a vegetable garden, is it better to spade it in deep, or keep it near the surface? Is bone dust the best manure to apply? J. W. H. Alexandria, Va. [To be efficient bone dust should be well intermixed through the soil—if too near the surface the roots will run below it—if buried too deep its decomposition will be slower, and it will be less efficient. It is a long enduring fertilizer, and will soon become thoroughly intermixed by the ordinary process of cultivation. It is very useful on some soils, and less so on others—determined only by experiment. On the whole, well-rotted yard manure or compost is generally the best fertilizer for gardens.]

BARNYARD LYRICS---No. 1.

Hoarse and cold the wind is blowning, Over fields of stainless white; Never yet so deep a snowing, Through a long mid-winter night!

High their shapes fantastic lifting, Snow banks by my fences rise, Taking forms, by midnight drifting, Graceful e'en to fancy's eyes.

Here the wind, an angle meeting, Blows a wild, capricious gale; There against my gateway beating, Drifts o'erleap the topmost rail.

Arbors neat, my garden gracing,
Thick the feathery whiteness see;
Walks that I was daily pacing,
Cease my favorite round to be.

Vine and tree with heads declining, Own the night's impetuous storm, Some to gorgeous shapes inclining, Some the fleecey robes deform.

Home itself has been invaded, Drifts surround it high and vast, Porch and door are close blockaded, Tray is made a prisoner fast.

Man, the great Creator's glory, Meets the crisis firm and strong; Blackening sky, or landscape hoary, Finds him not inactive long.

Voices loud of cattle lowing, Rise above the stormy fray, He their helpless strait is knowing, Poor dependant creatures they!

At the barn door, flercely driven, Stands the wide, gigantic drifs, Storm and wind have surely striven, There the mightiest bank to lift.

Every roof the fleece o'ertopping, Sports its wild, but rich festoon; Gables, too, their fringes dropping, Tell us this is winter's noon.

O'er the low and humble shedding, Where the porkers snoring lie, How the snow king has been spreading Feathery hillocks mountain high!

All the barnyard's area ample Shows its depth of chilling white; Must my herd its roughness trample? Can they in its cold delight?

What a lesson this is teaching!
I shall roof it tightly o'er;
Snow nor hail, nor showery leaching,
Shall my barnyard suffer more.

Horse and cow and pig have risen, By the morning's cloudy gray; Open quick their snow bound prison, Poor dependent creatures they!

As without the snow is blowing,
As the air is damp and cold,
So my utmost care bestowing,
I protect the young and old.

What though corn a dollar fetches, What though hay is twenty-five, Count me not among the wretches Who just keep their stock alive.

I have found that generous feeding,
Highest when the cold is keen,
Is the key to quite succeeding
When the fields have lost their green.

Plenty to the pig we're raising, Plenty to the cow we mess, Gives a profit so amazing That I will not do with less.

Friends who drive the plow and weeder,
We have lessons all to learn;
I have been a patient reader,
Be you patient in return.

A new volume (the 4th) of the Devon Herd Book has just been issued by Mr. Davy the editor, in England. It is larger than any of the previous vols., and besides the pedigrees, contains a record of all the prizes awarded the animals registered.

SHEEP-KILLING Dogs.—The supervisors of Schoharie county at their late meeting, awarded to different individuals the sum of \$790.89 as damages for sheep injured by dogs.

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For the contents, &c., of the Annual Register for 1864, see the Advertisement already published.

Advertisement already published.

To Canada Subscribers in Canada who remit in Bills of their own Specie-paying banks, will be supplied at the above prices—the premium on these bills enabling us to prepay American postage. If remittances are made in American bank notes, or, from New-Brunswick and Nova Scotia, in the bank notes of those provinces, our terms will be as follows: One copy CULTIVATOR, Seventy Cents—Ten copies CULTIVATOR and REGISTER, (including an eleventh or free copy to the Agent,) \$7—in order to enable us to prepay the American postage under the present regulations of the Department,

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- 3. For a club of Thirty-Five subscribers to The Cultivator and Register, accompanied by the cash (\$21) a free copy of the COUNTRY GENTLEMAN, one year, to the Agent, together with a complete set of the Annual Register for Ten Years—with
- about 1,200 pages of reading matter, and 1,500 engravings.

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- 6. For the 2d Largest Number of Subscribers received as above, a cash premium of Twenty Dollars.
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- *.* The Premiums offered in the above List, from Nos. 2 to 8 inclusive, it will be understood are in lieu of any extra copies of the CULTIVATOR and REGISTER. Those who prefer, will be entitled to a Premium Copy of The CULTIVATOR and REGISTER for every Ten Subscriptions accompanied by the cash, at 60 cents each.

Subscriptions accompanied by the cash, at 60 cents each.

*** In competing for these Premiums, a subscriber to the Country Gentleman at \$2 per year will receive the Annual Register, and will count to the Agent's credit for Three Cultivator subscribers; if club price is paid for the Country Gentleman (\$1.50 for the paper alone, or \$1.65 for the paper and Register) it will count for Two Cultivator subscribers on the Premium List.

Directions to Agents.—Those competing for premiums will be careful to number the subscribers they send in, thus—1, 2, 3, and so on, so that additions to the list from time to time may show at a glance the number reached. This prevents any misapprehension, and unless it is done, we cannot be responsible for any failure to credit competing subscriptions to the proper party.

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 110.

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 11

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Dec. 10-w&mtf,

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Dec. 17—w&m1t.

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Beside the usual Calendar pages, presenting calculations for the three different parallels of the New-England, the Middle and the Border States, the following synopsis will partially show the chief subjects treated and the ground covered in the "ANNUAL REGISTER

I. FARM DUTIES PERFORMED IN SEASON-FIFTY-SIX EN-

II .- ROAD MAKING-TEN ENGRAVINGS.

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IX.-RURAL ECONOMY.

-THE POULTRY-YARD-EIGHT ENGRAVINGS.

It will be observed that the Leading Article in the present number of the Annual Register is intended to follow the Farm Labors of the year throughout their round, suggesting the several points particularly requiring attention from month to month. It will be found well worth the price of the Number to every careful reader. In future issues, the various subjects of Gardening, Fruit Raising, &c., will probably be treated in a similar way.

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CONTENTS OF THIS NUMBER.

Shade Trees in Streets and Highways. 9 White Pine on Poor Lauds, by EDGAR SANDERS, 10 Sorghum in Western New-York. 11 Planting Large and Small Potatoes. 11 Roort of the Commissioner of Agriculture. 12 A Visit to J. L. Clift's Farm, by S. E. Todd. 15 Management of Highway Sides. 15 Management of Highway Sides. 15 Management of Highway Sides. 16 Michigan Agricultural College, 17 Culture of Tobacco in France. 20 Pennsylvania Agricultural College, by G. C. CALDWELL. 21 Sowing Flax with Barley, by Jawss McCollum. 22 How to Make a Good Barnyard, by L. F. Scott. 22 How to Make a Good Barnyard, by L. F. Scott. 23 Hey and Onion Crops on Long Island. 24 How to Make a Good Barnyard, by L. F. Scott. 25 Grinding Bones and Top-Dressing with Bone Dust, by Geo. 26 HASKELL. 27 HASKELL. 29 Hedges and their Management, 29 Hedges and their Management, 29 Hedges and their Management, 30 Culture of Chiccory. 31 A Good Oway to Cure Beans, by E. R. Towle. 34 A Good Way to Cure Beans, by E. R. Towle. 34 A Good Way to Cure Beans, by E. R. Towle. 35 Inquiries and Answers. 36 THE GRAZIER AND BREEDER. 36 A Cheap and Convenient Feeding Rack, by JAs. THOMPSON, 13 Value of the China Sheep. 36 Handlar Fractical Sheepherd, 37 Handian Sheep, by Gro, HASKELL. 38 Handlar Fractical Sheepherd, 39 Handing Apple Orchards. 30 Handra Sheep, by Gro, HASKELL. 31 Handlar Sheep, by Gro, HASKELL. 32 Handra Sheep, by Gro, HASKELL. 33 Harder Improved Sheep Rack. 34 Hontry House, by Cro, HASKELL. 35 Handra Sheep, by Gro, HASKELL. 36 Handra Sheep, by Gro, HASKELL. 37 Hondra Grapes for the North, by C. S. L. 38 Hontry House, by Cre, HASKELL. 39 Handra Sheep, by Gro, HASKELL. 30 Handra Sheep, by Gro, HASKELL. 30 Handra Sheep, by Gro, HASKELL. 31 Handra Sheep, by Gro, HASKELL. 32 Handra Sheep, by Gro, HASKELL. 36 Handra Sheep, by Gro, HASKELL. 39 Handra Sheep, by Gro, HASKELL. 30 Handra Sheep, by Gro, HASKELL. 30 Handra Sheep, by Gro, HASKELL. 30 Handra Sheep, by E. Soort. 30	CONTENTS OF THIS NUMBER.	
White Pine on Poor Lands, by EDGAR SANDERS, 10 Sorghum in Western New-York, 11 Planting Large and Small Potatoes, 11 Report of the Commissioner of Agriculture, 12 A Visit to J. L. Clift's Farm, by S. E. Todd, 15 Management of Highmy Sides, 15 Chinese Sugar Cane at the East, by John Fleming, 15 Massachusetts Board of Agriculture, 16 Michigan Agricultural College, 17 Culture of Tobacco in France, 20 Pennsylvania Agricultural College, by G. C. Caldwell, 21 Sowing Flax with Barley, by James McCollum, 22 How to Make a Good Barnyard, by L. F. Scott, 22 Rye and Onion Crops on Long Island, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 Rye and Onion Crops on Long Island, 23 Beath of Col. Francis M. Rotch, 24 A Good Onion Crop, by W. Fractoron, 24 A Good Onion Crop, by W. Fractoron, 25 Early Winter Wheat Wanted, by F. POUND, 27 A Remarkable Cranberry Swamp, 29 Hedges and their Management, 29 Notes for the Month, 32 Culture of Chiccory, 34 A Experiment in Manuring Wheat, by J. Talcott, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Sample of New-Jersey Farming, 35 Inquiries and Answers, 35 Inquiries and Answers, 35 Inquiries and Answers, 35 Inquiries and Answers, 36 Merino Ram Sweepstakes, 32 Herino Ram Sweepstakes, 32 Herino Ram Sweepstakes, 32 Horino Ram Sweepstakes, 32 Horino Ram Sweepstakes, 32 Horino Ram Sweepstakes, 34 Hale's Improved Sheep in the Winter, by Baker, Jr. 14 Randall's Practical Shepherd, 31 Rale's Improved Sheep fack, 34 Hale's Improved Sheep Rack, 34 Hale's Improved Sheep Rack		
Planting Large and Small Potatoes, 12 A Visit to J. L. Clift's Farm, by S. E. Todd, 15 Management of Highway Sides, 15 Chinese Sugar Cane at the East, by John Flemme, 16 Masschusetts Board of Agriculture, 16 Michigan Agricultural College, 17 Culture of Tobacco in France, 20 Pennsylvania Agricultural College, by G. C. Caldwell, 21 Sowing Flax with Barley, by James McCollum, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 23 Death of Col. Francis M. Rotch, 24 A Good Onion Crop, by J. W. Proctor, 25 Haskell, 24 How to Month, 25 Larly Winter Wheat Wanted, by F. POUND, 27 A Remarkable Cranberry Swamp, 29 Hedges and their Management, 29 Notes for the Month, 20 Lulture of Chiccory, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Wa	Shade Trees in Streets and Highways,	. 9
Planting Large and Small Potatoes, 12 A Visit to J. L. Clift's Farm, by S. E. Todd, 15 Management of Highway Sides, 15 Chinese Sugar Cane at the East, by John Flemme, 16 Masschusetts Board of Agriculture, 16 Michigan Agricultural College, 17 Culture of Tobacco in France, 20 Pennsylvania Agricultural College, by G. C. Caldwell, 21 Sowing Flax with Barley, by James McCollum, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 23 Death of Col. Francis M. Rotch, 24 A Good Onion Crop, by J. W. Proctor, 25 Haskell, 24 How to Month, 25 Larly Winter Wheat Wanted, by F. POUND, 27 A Remarkable Cranberry Swamp, 29 Hedges and their Management, 29 Notes for the Month, 20 Lulture of Chiccory, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Wa	White Pine on Poor Lands, by EDGAR SANDERS,	10
Report of the Commissioner of Agriculture, 12 A Visit to J. L. Cliff's Farm, by S. E. ToDD, 15 Management of Highway Sides, 15 Chinese Sugar Cane at the East, by JOHN FLEMINO, 15 Massschusetts Board of Agriculture, 16 Michigan Agricultural College, 17 Culture of Tobacco in France, 20 Pennsylvania Agricultural College, by G. C. CALDWELL, 21 Sowing Flax with Barley, by JAMES McCOLLUM, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 22 How to Make a Good Barnyard, by L. F. Scott, 23 Holding Bones and Top-Dressing with Bone Dust, by Geo. 27 Holding Bones and Top-Dressing with Bone Dust, by Geo. 27 Holding Bones and Holding Barnyard Lyris, 20 Holding Barnyard Lyris, 30 Holding Barnyard Lyris, 30 Holding Barnyard Lyris, 30 Holding Barnyard Lyris, 30 Holding	Planting Large and Small Potatoes	
Chinese Sugar Cane at the East, by John Fleming, 15 Massachusetts Board of Agriculture, 16 Michigan Agricultural College, 17 Culture of Tobacco in France, 20 Pennsylvania Agricultural College, by G. C. CALDWELL, 21 Sowing Flax with Barley, by James McCollum, 22 How to Make a Good Barnyard, by L. F. SCOTT, 22 Rye and Onion Crops on Long Island, 23 Death of Col. Francis M. Rotch, 24 A Good Onion Crop, by J. W. Proctor, 24 Grinding Bones and Top-Dressing with Bone Dust, by GEO. 27 Grinding Bones and Top-Dressing with Bone Dust, by GEO. 32 HASKELL, 25 Early Winter Wheat Wanted, by F. POUND, 27 A Remarkable Cranberry Swamp, 29 Hedges and their Management, 29 Hodges and their Management, 29 Hodges and their Management, 34 Notes for the Month, 32 Culture of Chiccory, 34 A Good Way to Cure Beans, by E. R. Towles, 34 A Good Way to Cure Beans, by E. R. Towles, 34 A Sample of New-Jersey Farming, 35 Inquiries and Answers, 35 THIE GHAZIER AND BREEDER. A Cheap and Convenient Feeding Rack, by Jas. Thompson, 13 Value of the China Sheep, 14 Randall's Practical Shepherd, 31 Rale's Improved Sheep in the Winter, by Baker, Jr., 14 Randall's Practical Shepherd, 31 Rale's Improved Sheep Rack, 22 Treatment of Sheep in Winter, by J. S. Goe, 23 Hale's Improved Sheep Rack, 24 Tumor on a Cow's Face, by H. L. T. 31 Barnyard Lyrics—No. 1, 96 Culture of the Quince, by W. E. C. 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 29 Pranting and Training Grap	Report of the Commissioner of Agriculture,	12
Chinese Sugar Cane at the East, by John Fleming, 15 Massachusetts Board of Agriculture, 16 Michigan Agricultural College, 17 Culture of Tobacco in France, 20 Pennsylvania Agricultural College, by G. C. CALDWELL, 21 Sowing Flax with Barley, by James McCollum, 22 How to Make a Good Barnyard, by L. F. SCOTT, 22 Rye and Onion Crops on Long Island, 23 Death of Col. Francis M. Rotch, 24 A Good Onion Crop, by J. W. Proctor, 24 Grinding Bones and Top-Dressing with Bone Dust, by GEO. 27 Grinding Bones and Top-Dressing with Bone Dust, by GEO. 32 HASKELL, 25 Early Winter Wheat Wanted, by F. POUND, 27 A Remarkable Cranberry Swamp, 29 Hedges and their Management, 29 Hodges and their Management, 29 Hodges and their Management, 34 Notes for the Month, 32 Culture of Chiccory, 34 A Good Way to Cure Beans, by E. R. Towles, 34 A Good Way to Cure Beans, by E. R. Towles, 34 A Sample of New-Jersey Farming, 35 Inquiries and Answers, 35 THIE GHAZIER AND BREEDER. A Cheap and Convenient Feeding Rack, by Jas. Thompson, 13 Value of the China Sheep, 14 Randall's Practical Shepherd, 31 Rale's Improved Sheep in the Winter, by Baker, Jr., 14 Randall's Practical Shepherd, 31 Rale's Improved Sheep Rack, 22 Treatment of Sheep in Winter, by J. S. Goe, 23 Hale's Improved Sheep Rack, 24 Tumor on a Cow's Face, by H. L. T. 31 Barnyard Lyrics—No. 1, 96 Culture of the Quince, by W. E. C. 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Proper Distance Apart of Apple Trees, by W. E. C., 29 Pranting and Training Grap	A Visit to J. L. Clift's Farm, by S. E. Todd,	15
Massachusetts Board of Agriculture, 16 Michigan Agricultural College, 17 Culture of Tobacco in France, 20 Pennsylvania Agricultural College, by G. C. CALDWELL, 21 Sowing Flax with Barley, by James McCollum, 22 How to Make a Good Barnyard, by L. F. Scott, 22 Rye and Onion Crops on Long Island, 23 Death of Col. Francis M. Rotch, 24 A Good Onion Crop, by J. W. Proctor, 24 Grinding Bones and Top-Dressing with Bone Dust, by Geo. 27 HASKELL, 27 Early Winter Wheat Wanted, by F. POUND, 27 A Remarkable Cranberry Swamp, 29 Hedges and their Management, 29 Hodges and their Management, 29 Hodges and their Management, 34 Notes for the Month, 32 Culture of Chiccory, 34 An Experiment in Manuring Wheat, by J. TALCOTT, 34 Indian Corn as a Fodder Crop, by Wm. J. Petter, 34 A Good Way to Cure Beans, by E. R. Towles, 34 A Sample of New-Jersey Farming, 35 Inquiries and Answers, 35 Inquiries and Answers, 35 Inquiries and Answers, 35 Inquiries and Convenient Feeding Rack, by Jas. Thompson, 13 Value of the China Sheep, 14 Randall's Practical Shepherd, 31 Rale's Improved Sheep in the Winter, by Baker, Jr., 14 Randall's Practical Shepherd, 31 Rale's Improved Sheep Rack, 22 Treatment of Sheep in Winter, by J. S. Goe, 23 Hale's Improved Sheep Rack, 24 Tumor on a Cow's Face, by H. L. T., 31 Barnyard Lyrics—No. 1, 19 HOPTICULTURAL DEPARTMENT. Planting Apple Orchards, 13 The Best Grapes for the North, by C. S. L., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Ma auring Grapevines, by S. E. Todd, 31 Treatment of Cheap fee Houses, 31 From Good Milkers, by L. S. Robinson, 11 The Best Grapes for the North, by C. S. L., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Pruning and Training Grapevines, by F. K. PHENIX, 28 Window Gardening in Denmark, 29 RURAL ARCHITECTURE. Construction of Cheap fee Houses, 31 Poultry House, by Chas. E. Sands, 25 THE DAIRY DEPARTMENT. The Bee-Keeper Rack, 30 Abortion in Cows, by L. F. Scott, 30 Abortion	Management of Highway Sides,	15
Michigan Agricultural College, by G. C. CALDWELL, 20 Pennsylvania Agricultural College, by G. C. CALDWELL, 21 Sowing Flax with Barley, by JAMES McCOLLUM, 22 How to Make a Good Barnyard, by L. F. SCOTT, 22 How to Make a Good Barnyard, by L. F. SCOTT, 22 How to Make a Good Barnyard, by L. F. SCOTT, 22 Hyas and Onion Crops on Long Island, 24 A Good Onion Crop, by J. W. PROCTOR, 25 Grinding Bones and Top-Dressing with Bone Dust, by GEO. 27 HASKELL, 52 HASKELL, 54 HASKELL, 55 HASKELL, 57 HASKELL, 5	Massachusetts Roard of Agriculture	16
Culture of Tobacco in France, 20 Sensity vania Agricultural College, by G. C. CALDWELL, 21 Sowing Flax with Barley, by James McCollum, 22 How to Make a Good Barnyard, by L. F. Scott, 22 Rye and Onion Crops on Long Island, 23 Death of Col. Francis M. Rotch, 24 A Good Onion Crop, by J. W. Proctor, 25 Grinding Bones and Top-Dressing with Bone Dust, by Geo. 4 Grinding Bones and Top-Dressing with Bone Dust, by Geo. 4 Grinding Bones and Top-Dressing with Bone Dust, by Geo. 5 Grinding Bones and Top-Dressing with Bone Dust, by Geo. 4 Remarkable Cranberry Swamp, 29 Hedges and their Management, 29 Hedges and their Manuring Wheat, by J. Talcott, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Sample of New-Jersey Farming, 35 Inquiries and Answers, 35 Inquiries and Answers, 35 Inquiries and Answers, 35 Inquiries and Answers, 35 Inquiries and Convenient Feeding Rack, by Jas. Thompson, 13 Value of the China Sheep, 14 Randall's Practical Shepherd, 17 Sale of Valuable Horses, 18 Merino Ram Sweepstakes, 22 The China Sheep, by Geo, Haskell, 22 Treatment of Sheep in winter, by J. S. Goe, 23 Hale's Improved Sheep Rack, 24 Treatment of Sheep in Winter, by J. S. Goe, 23 Hale's Improved Sheep Rack, 24 Treatment of Sheep in Winter, by J. S. Goe, 24 Treatment of Sheep in Winter, by J. S. Goe, 24 Hale is Improved Sheep Rack, 24 Treatment of Sheep in Winter, by J. S. Goe, 25 Hale's Improved Sheep Rack, 26 Hale is Improved Sheep Rack, 27 Heding Apple Orchards, 28 Hundron a Cow's Face, by H. L. T., 36 Hortfull/Tural Department. Planting Apple Orchards, 29 Treatment of Sheep in Winter, by J. S. Goe, 30 Hale's Improved Sheep Rack, 30 Hundridge, 30 Hundridge	Michigan Agricultural College,	17
Sowing Flax with Barley, by James McCollum, 22 How to Make a Good Barnyard, by L. F. Scott, 22 Rye and Onion Crops on Long Island, 23 Death of Col. Francis M. Rotch, 24 A Good Onion Crop, by J. W. Proctor, 25 Grinding Bones and Top-Dressing with Bone Dust, by Geo. 27 HASKELL, 27 Early Winter Wheat Wanted, by F. POUND, 27 A Remarkable Cranberry Swamp, 29 Hedges and their Management, 29 Notes for the Month, 39 Culture of Chiccory, 34 An Experiment in Manuring Wheat, by J. Talcott, 34 An Experiment in Manuring Wheat, by J. Talcott, 34 An Experiment in Manuring Wheat, by J. Talcott, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Cheap and Convenient Feeding Rack, by Jas. Thompson, 13 Value of the China Sheep, 14 Management of Sheep in the Winter, by Baker, Jr., 14 Management of Sheep in the Winter, by Baker, Jr., 14 Randall's Practical Shepherd, 17 Sale of Valuable Horses, 18 Merino Ram Sweepstakes, 22 The China Sheep, by Geo, Haskell, 23 Theatment of Sheep in Winter, by J. S. Goe, 23 Treatment of Sheep in Winter, by J. S. Goe, 23 Treatment of Sheep in Winter, by J. S. Goe, 23 Hale's Improved Sheep Rack, 24 Tumor on a Cow's Face, by H. L. T., 36 HORTICULTURAL DEPARTMENT. Planting Apple Orchards, 13 The Best Grapes for the North, by C. S. L., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Ma- nuring Grapevines, by S. E. Todd, 29 THE DAIRY DEPARTMENT. Two Good Milkers, by L. S. Robinson, 11 Stanchions for Cows, by L. F. Scott, 19 Pruning and Training Grapevines, by F. K. Phænix, 28 Window Gardening in Denmark, 29 THE DAIRY DEPARTMENT. 14 Dairying in Oswego Co., by Hiram Walker, 19 Two Extra Milkers by L. S. Robinson, 11 Stanchions for Cows, by L. F. Scott, 19 Proper Distance Apart of Apple Crees, by W. E. C., 29 Pruning and Raising, by C. E. Sands, 25 THE BEE-KEEPER'S DEPARTMENT. 13 Experiments on Non-Swarming—Size of Bee-	Culture of Tobacco in France,	20
How to Make a Good Barnyard, by L. F. SCOTT. Rye and Onion Crops on Long Island. 22 Death of Col. Francis M. Rotch. A Good Onion Crop. by J. W. Proctor. 25 Grinding Bones and Top-Dressing with Bone Dust, by Geo. HASKELL. HASKELL. HASKELL. HASKELL. Early Winter Wheat Wanted, by F. POUND, A Remarkable Cranberry Swamp, Bedges and their Management, 29 Hedges and their Management, 30 Culture of Chiccory. 34 An Experiment in Manuring Wheat, by J. TALCOTT, 34 Indian Corn as a Fodder Crop, by W. J. PETTER, 34 A Good Way to Cure Beans, by E. R. TOWLE, 34 A Sample of New-Jersey Farming, 35 Inquiries and Answers. 36 THE GRAZIER AND BREEDER. A Cheap and Convenient Feeding Rack, by Jas. Thompson, 13 Value of the China Sheep, Management of Sheep in the Winter, by BAKER, JR., 14 Randall's Practical Shepherd, 17 Sale of Valuable Horses, Merino Ram Sweepstakes, The China Sheep, by Geo, HASKELL, 23 Treatment of Sheep in Winter, by J. S. Goe, 23 Hale's Improved Sheep Rack. 24 Tumor on a Cow's Face, by H. L. T. 31 Barnyard Lyries—No. 1, 40 HORTICULTURAL DEPARTMENT. Planting Apple Orchards, The Best Grapes for the North, by C. S. L. 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Cultivation of Grapevines, by S. E. Todd, 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Malary Grapevines, by S. E. Todd, Prunning and Training Grapevines, by F. K. PHERIX, 28 Window Gardening in Denmark, 29 Pruning and Training Grapevines, by F. K. PHERIX, 28 Window Gardening in Denmark, 29 Pruning and Training Grapevines, by F. K. PHERIX, 29 Pruning and Training Grapevines, by F. K. PHERIX, 29 Window Gardening in Oswego Co., by HIRAM WALKER, 19 Two Extra Milkers, by W. W. CHENERY, 30 Abortion in Cows, by L. F. Scott, 31 Wester Proof Boots and Shoes, 31 Weter Proof Boots and Shoes, 31 Water Proof Boots and Shoes, 31	Pennsylvania Agricultural College, by G. C. CALDWELL,	21
Hedges and their Management, 29 Notes for the Month, 32 Culture of Chiccory, 34 An Experiment in Manuring Wheat, by J. TALCOTT, 34 An Experiment in Manuring Wheat, by J. TALCOTT, 34 Indian Corn as a Fodder Crop, by Wm. J. Petter, 34 A Good Way to Cure Beans, by E. R. TOWLE, 34 A Sample of New-Jersey Farming, 35 Inquiries and Answers, 35 Inquiries and Answers, 35 Inquiries and Convenient Feeding Rack, by Jas. THOMPSON, 13 Value of the China Sheep, 44 Management of Sheep in the Winter, by Baker, Jr., 14 Randall's Practical Shepherd, 17 Sale of Valuable Horses, 18 Merino Ram Sweepstakes, 22 The China Sheep, by Geo, HASKELL, 23 Treatment of Sheep in Winter, by J. S. Goz, 23 Hale's Improved Sheep Rack, 24 Tumor on a Cow's Face, by H. L. T., 31 Barnyard Lyrics—No. 1, 36 HORTICULTURAL DEPARTMENT. Planting Apple Orchards, 13 The Best Grapes for the North, by C. S. L., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Malanuring Grapevines, by S. E. Toddy, 29 Pruning and Training Grapevines, by F. K. PHŒNIX, 28 Window Gardening in Denmark, 29 Pruning Grapevines, by W. E. C., 31 Proper Distance Apart of Apple Trees, by W. E. C., 32 Pruning Grapevines, by S. E. Toddy, 32 Pruning Grapevines, by F. K. PHŒNIX, 28 Window Gardening in Denmark, 29 Pruning Grapevines, by C. S. E. Sands, 25 THE BAIRY DEPARTMENT. Two Good Milkers, by L. S. ROBINSON, 31 Stanchions for Cows, by L. F. Scott, 30 Abortion in Cows, by L. F.	How to Make a Good Parroyard by J. F. Scorr	99
Hedges and their Management, 29 Notes for the Month, 32 Culture of Chiccory, 34 An Experiment in Manuring Wheat, by J. TALCOTT, 34 An Experiment in Manuring Wheat, by J. TALCOTT, 34 Indian Corn as a Fodder Crop, by Wm. J. Petter, 34 A Good Way to Cure Beans, by E. R. TOWLE, 34 A Sample of New-Jersey Farming, 35 Inquiries and Answers, 35 Inquiries and Answers, 35 Inquiries and Convenient Feeding Rack, by Jas. THOMPSON, 13 Value of the China Sheep, 44 Management of Sheep in the Winter, by Baker, Jr., 14 Randall's Practical Shepherd, 17 Sale of Valuable Horses, 18 Merino Ram Sweepstakes, 22 The China Sheep, by Geo, HASKELL, 23 Treatment of Sheep in Winter, by J. S. Goz, 23 Hale's Improved Sheep Rack, 24 Tumor on a Cow's Face, by H. L. T., 31 Barnyard Lyrics—No. 1, 36 HORTICULTURAL DEPARTMENT. Planting Apple Orchards, 13 The Best Grapes for the North, by C. S. L., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Malanuring Grapevines, by S. E. Toddy, 29 Pruning and Training Grapevines, by F. K. PHŒNIX, 28 Window Gardening in Denmark, 29 Pruning Grapevines, by W. E. C., 31 Proper Distance Apart of Apple Trees, by W. E. C., 32 Pruning Grapevines, by S. E. Toddy, 32 Pruning Grapevines, by F. K. PHŒNIX, 28 Window Gardening in Denmark, 29 Pruning Grapevines, by C. S. E. Sands, 25 THE BAIRY DEPARTMENT. Two Good Milkers, by L. S. ROBINSON, 31 Stanchions for Cows, by L. F. Scott, 30 Abortion in Cows, by L. F.	Rve and Onion Crops on Long Island	23
Hedges and their Management, 29 Notes for the Month, 32 Culture of Chiccory, 34 An Experiment in Manuring Wheat, by J. TALCOTT, 34 An Experiment in Manuring Wheat, by J. TALCOTT, 34 Indian Corn as a Fodder Crop, by Wm. J. Petter, 34 A Good Way to Cure Beans, by E. R. TOWLE, 34 A Sample of New-Jersey Farming, 35 Inquiries and Answers, 35 Inquiries and Answers, 35 Inquiries and Convenient Feeding Rack, by Jas. THOMPSON, 13 Value of the China Sheep, 44 Management of Sheep in the Winter, by Baker, Jr., 14 Randall's Practical Shepherd, 17 Sale of Valuable Horses, 18 Merino Ram Sweepstakes, 22 The China Sheep, by Geo, HASKELL, 23 Treatment of Sheep in Winter, by J. S. Goz, 23 Hale's Improved Sheep Rack, 24 Tumor on a Cow's Face, by H. L. T., 31 Barnyard Lyrics—No. 1, 36 HORTICULTURAL DEPARTMENT. Planting Apple Orchards, 13 The Best Grapes for the North, by C. S. L., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Malanuring Grapevines, by S. E. Toddy, 29 Pruning and Training Grapevines, by F. K. PHŒNIX, 28 Window Gardening in Denmark, 29 Pruning Grapevines, by W. E. C., 31 Proper Distance Apart of Apple Trees, by W. E. C., 32 Pruning Grapevines, by S. E. Toddy, 32 Pruning Grapevines, by F. K. PHŒNIX, 28 Window Gardening in Denmark, 29 Pruning Grapevines, by C. S. E. Sands, 25 THE BAIRY DEPARTMENT. Two Good Milkers, by L. S. ROBINSON, 31 Stanchions for Cows, by L. F. Scott, 30 Abortion in Cows, by L. F.	Death of Col. Francis M. Rotch	24
Hedges and their Management, 29 Notes for the Month, 32 Culture of Chiccory, 34 An Experiment in Manuring Wheat, by J. TALCOTT, 34 An Experiment in Manuring Wheat, by J. TALCOTT, 34 Indian Corn as a Fodder Crop, by Wm. J. Petter, 34 A Good Way to Cure Beans, by E. R. TOWLE, 34 A Sample of New-Jersey Farming, 35 Inquiries and Answers, 35 Inquiries and Answers, 35 Inquiries and Convenient Feeding Rack, by Jas. THOMPSON, 13 Value of the China Sheep, 44 Management of Sheep in the Winter, by Baker, Jr., 14 Randall's Practical Shepherd, 17 Sale of Valuable Horses, 18 Merino Ram Sweepstakes, 22 The China Sheep, by Geo, HASKELL, 23 Treatment of Sheep in Winter, by J. S. Goz, 23 Hale's Improved Sheep Rack, 24 Tumor on a Cow's Face, by H. L. T., 31 Barnyard Lyrics—No. 1, 36 HORTICULTURAL DEPARTMENT. Planting Apple Orchards, 13 The Best Grapes for the North, by C. S. L., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Malanuring Grapevines, by S. E. Toddy, 29 Pruning and Training Grapevines, by F. K. PHŒNIX, 28 Window Gardening in Denmark, 29 Pruning Grapevines, by W. E. C., 31 Proper Distance Apart of Apple Trees, by W. E. C., 32 Pruning Grapevines, by S. E. Toddy, 32 Pruning Grapevines, by F. K. PHŒNIX, 28 Window Gardening in Denmark, 29 Pruning Grapevines, by C. S. E. Sands, 25 THE BAIRY DEPARTMENT. Two Good Milkers, by L. S. ROBINSON, 31 Stanchions for Cows, by L. F. Scott, 30 Abortion in Cows, by L. F.	A Good Onion Crop, by J. W. PROCTOR,	25
Hedges and their Management, 29 Notes for the Month, 32 Culture of Chiccory, 34 An Experiment in Manuring Wheat, by J. TALCOTT, 34 An Experiment in Manuring Wheat, by J. TALCOTT, 34 Indian Corn as a Fodder Crop, by Wm. J. Petter, 34 A Good Way to Cure Beans, by E. R. TOWLE, 34 A Sample of New-Jersey Farming, 35 Inquiries and Answers, 35 Inquiries and Answers, 35 Inquiries and Convenient Feeding Rack, by Jas. THOMPSON, 13 Value of the China Sheep, 44 Management of Sheep in the Winter, by Baker, Jr., 14 Randall's Practical Shepherd, 17 Sale of Valuable Horses, 18 Merino Ram Sweepstakes, 22 The China Sheep, by Geo, HASKELL, 23 Treatment of Sheep in Winter, by J. S. Goz, 23 Hale's Improved Sheep Rack, 24 Tumor on a Cow's Face, by H. L. T., 31 Barnyard Lyrics—No. 1, 36 HORTICULTURAL DEPARTMENT. Planting Apple Orchards, 13 The Best Grapes for the North, by C. S. L., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Malanuring Grapevines, by S. E. Toddy, 29 Pruning and Training Grapevines, by F. K. PHŒNIX, 28 Window Gardening in Denmark, 29 Pruning Grapevines, by W. E. C., 31 Proper Distance Apart of Apple Trees, by W. E. C., 32 Pruning Grapevines, by S. E. Toddy, 32 Pruning Grapevines, by F. K. PHŒNIX, 28 Window Gardening in Denmark, 29 Pruning Grapevines, by C. S. E. Sands, 25 THE BAIRY DEPARTMENT. Two Good Milkers, by L. S. ROBINSON, 31 Stanchions for Cows, by L. F. Scott, 30 Abortion in Cows, by L. F.	Grinding Bones and Top-Dressing with Bone Dust, by GEO.	27
Hedges and their Management, 29 Notes for the Month, 32 Culture of Chiccory, 34 An Experiment in Manuring Wheat, by J. TALCOTT, 34 An Experiment in Manuring Wheat, by J. TALCOTT, 34 Indian Corn as a Fodder Crop, by Wm. J. Petter, 34 A Good Way to Cure Beans, by E. R. TOWLE, 34 A Sample of New-Jersey Farming, 35 Inquiries and Answers, 35 Inquiries and Answers, 35 Inquiries and Convenient Feeding Rack, by Jas. THOMPSON, 13 Value of the China Sheep, 44 Management of Sheep in the Winter, by Baker, Jr., 14 Randall's Practical Shepherd, 17 Sale of Valuable Horses, 18 Merino Ram Sweepstakes, 22 The China Sheep, by Geo, HASKELL, 23 Treatment of Sheep in Winter, by J. S. Goz, 23 Hale's Improved Sheep Rack, 24 Tumor on a Cow's Face, by H. L. T., 31 Barnyard Lyrics—No. 1, 36 HORTICULTURAL DEPARTMENT. Planting Apple Orchards, 13 The Best Grapes for the North, by C. S. L., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Malanuring Grapevines, by S. E. Toddy, 29 Pruning and Training Grapevines, by F. K. PHŒNIX, 28 Window Gardening in Denmark, 29 Pruning Grapevines, by W. E. C., 31 Proper Distance Apart of Apple Trees, by W. E. C., 32 Pruning Grapevines, by S. E. Toddy, 32 Pruning Grapevines, by F. K. PHŒNIX, 28 Window Gardening in Denmark, 29 Pruning Grapevines, by C. S. E. Sands, 25 THE BAIRY DEPARTMENT. Two Good Milkers, by L. S. ROBINSON, 31 Stanchions for Cows, by L. F. Scott, 30 Abortion in Cows, by L. F.	Forly Winter Wheat Wested by F Power	97
Hedges and their Management, 28 Notes for the Month, 32 Culture of Chiccory, 34 An Experiment in Manuring Wheat, by J. TALCOTT, 34 Indian Corn as a Fodder Crop, by Wm. J. PETTEE, 34 A Good Way to Cure Beans, by E. R. TOWLE, 34 A Sample of New-Jersey Farming, 35 Inquiries and Answers, 35 THE GRAZIER AND BREEDER. A Cheap and Convenient Feeding Rack, by Jas. Thompson, 13 Value of the China Sheep, 14 Management of Sheep in the Winter, by Baker, Jr. 14 Randall's Practical Shepherd, 17 Sale of Valuable Horses, 18 Merino Ram Sweepstakes, 22 The China Sheep, by Geo, Haskell, 23 Treatment of Sheep in Winter, by J. S. Goz, 23 Hale's Improved Sheep Rack, 24 Tumor on a Cow's Face, by H. L. T., 31 Barnyard Lyrics—No. 1, 36 HORTICULTURAL DEPARTMENT. Planting Apple Orchards, 13 The Best Grapes for the North, by C. S. L., 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Malanuring Grapevines, by S. E. Todd, 19 Cultury for Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Malanuring Grapevines, by F. K. PHŒNIX, 28 Window Gardening in Denmark, 29 Window Gardening in Denmark, 29 THE DAIRY DEPARTMENT. TWO Good Milkers, by L. S. Robisson, 11 Stanchions for Cows, by L. F. SCOTT, 14 Dairying in Oswego Co., by Hirkam Walker, 19 Two Extra Milkers, by W. W. CHENERY, 30 Abortion in Cows, by L. F. SCOTT, 14 Dairying in Oswego Co., by Hirkam Walker, 19 Two Extra Milkers, by W. W. CHENERY, 30 Abortion in Cows, by L. F. SCOTT, 14 Dairying in Oswego Co., by Hirkam Walker, 19 Two Extra Milkers, by W. W. CHENERY, 30 Abortion in Cows, by L. F. SCOTT, 14 Dairying in Oswego Co., by Hirkam Walker, 19 Two Extra Milkers, by W. W. CHENERY, 30 Abortion in Cows, by L. F. SCOTT, 30 THE POULTRY YARD. Poultry Keeping and Raising, by C. E. SANDS, 25 THE BEE-KEEPER'S DEPARTMENT. Overstocking with Bees, by E. L. HOLDEN, 13 Experiments on Non-Swarming—Size of Bee-Hives, by 13 ELHU KIBBY, 27 Filling Ice Houses, 31 Water Proof Boots and Shoes, 31 HILUSTIRATIONS.	A Remarkable Cranberry Swamp	29
Notes for the Month. 32 Culture of Chiccory. 34 An Experiment in Manuring Wheat. by J. TALCOTT. 34 Indian Corn as a Fodder Crop, by Wm. J. Petter. 34 A Good Way to Cure Beans, by E. R. Towle. 34 A Sample of New-Jersey Farming, 35 Inquiries and Answers. 35 THE GHAZIER AND BREEDER. A Cheap and Convenient Feeding Rack, by Jas. Thompson, 13 Value of the China Sheep, 14 Management of Sheep in the Winter, by Baker, Jr. 14 Randall's Practical Shepherd, 17 Sale of Valuable Horses, 18 Merino Ram Sweepstakes, 22 The China Sheep, by Geo, Haskell, 23 Treatment of Sheep in Winter, by J. S. Goe, 23 Hale's Improved Sheep Rack, 24 Tumor on a Cow's Face, by H. L. T., 31 Barnyard Lyrics—No. 1, 36 HORTICULTURAL DEPARTMENT. Planting Apple Orchards. 13 The Best Grapes for the North, by C. S. L., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Maluring Grapevines, by S. E. Todd. Pruning Grapevines, by S. E. Todd. Pruning and Training Grapevines, by F. K. PHŒNIX, 28 Window Gardening in Denmark, 29 THE DAIRY DEPARTMENT. Two Good Milkers, by L. S. Robinson, 11 Stanchions for Cows, by L. F. Scott, 30 Abortion in Cows, by L. F. Scot	Hedges and their Management.	29
Culture of Chiccory, An Experiment in Manuring Wheat, by J. TALCOTT, An Experiment in Manuring Wheat, by J. TALCOTT, An Experiment in Manuring Wheat, by J. PETTEE, A Good Way to Cure Beans, by E. R. Towle, A Sample of New-Jersey Farming, 35 Inquiries and Answers, 35 Inquiries and Answers, 35 Inquiries and Convenient Feeding Rack, by Jas. Thompson, 18 Walue of the China Sheep, 19 Management of Sheep in the Winter, by Baker, Jr., 14 Management of Sheep in the Winter, by Baker, Jr., 14 Management of Sheep in the Winter, by Baker, 17 Sale of Valuable Horses, 18 Merino Ram Sweepstakes, 19 The China Sheep, by Geo, Haskell, 23 Treatment of Sheep in Winter, by J. S. Goe, 23 Hale's Improved Sheep Rack, 24 Tumor on a Cow's Face, by H. L. T., 31 Barnyard Lyrics—No. 1, 36 HORTICULTURAL DEPARTMENT. Planting Apple Orchards, 31 The Best Grapes for the North, by C. S. L., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Manuring Grapevines, by S. E. Todd, 31 Pruning and Training Grapevines, by F. K. Phienix, 32 Window Gardening in Denmark, 32 Poultry House, by Chas. E. Sands, 31 Poultry House, by Chas. E. Sands, 32 THE DAIRY DEPARTMENT. Two Good Milkers, by L. S. Robinson, 11 Stanchions for Cows, by L. F. Scott, 14 Dairying in Oswego Co., by Hiram Walker, 19 Two Extra Milkers, by W. W. C. E. Sands, 25 THE DAIRY DEPARTMENT. Overstocking with Bees, by E. L. Holden, 13 Experiments on Non-Swarming—Size of Bee-Hives, by ELHIU KIRBY, DOMESTIC ECONOMY. Cement for Stopping Leaks, 17 How to Make Cider Vinegar, by W. E. C., 27 Preparation of Chiccory for Use, 34 HILJUSTRATIONS.	Notes for the Month	32
Indian Corn as a Fodder Crop, by WM. J. PETTER. 34 A Good Way to Cure Beans, by E. R. Towle, 34 A Sample of New-Jersey Farming, 35 Inquiries and Answers, 35 THE GRAZIER AND BREEDER. A Cheap and Convenient Feeding Rack, by Jas. Thompson, 13 Value of the China Sheep, 14 Randall's Practical Shepherd, 17 Sale of Valuable Horses, 18 Merino Ram Sweepstakes, 22 The China Sheep, by Geo, Haskell, 23 Treatment of Sheep in Winter, by J. S. Goe, 23 Hale's Improved Sheep Rack, 24 Tumor on a Cow's Face, by H. L. T. 31 Barnyard Lyrics—No. 1, 36 HORTICULTURAL DEPARTMENT. Planting Apple Orchards, 13 The Best Grapes for the North, by C. S. L. 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Ma-26 nuring Grapevines, by S. E. Todd, 31 Pruning and Training Grapevines, by F. K. Phænix, 28 Window Gardening in Denmark, 29 Window Gardening in Denmark, 29 RURAL ARCHITECTURE. Construction of Cheap Ice Houses, 31 Poultry House, by Chas. E. Sands, 25 THE DAIRY DEPARTMENT. Two Good Milkers, by L. S. Robinson, 11 Stanchions for Cows, by L. F. Scott, 14 Dairying in Oswego Co., by Hiram Walker, 19 Two Extra Milkers, by W. W. Chenery, 30 Abortion in Cows, by L. F. Scott, 30 THE POULTRY YARD. Poultry Keeping and Raising, by C. E. Sands, 25 THE BEE-KEEPER'S DEPARTMENT. Overstocking with Bees, by E. L. Holden, 13 Experiments on Non-Swarming—Size of Bee-Hives, by ELHU Kirby, 30 ELHU KIRBY, 30 DOMESTIC ECONOMY. Cement for Stopping Leaks, 17 How to Make Cider Vinegar, by W. E. C., 22 Preparation of Chiccory for Use, 37 Filling Ice Houses, 31 Water Proof Boots and Shoes, 31 HLLUSTRATIONS.	Culture of Chiccory,	34
A Sample of New-Jersey Farming, 35 Inquiries and Answers, 35 THE GRAZIER AND BREEDER. A Cheap and Convenient Feeding Rack, by Jas. Thompson, 13 Value of the China Sheep, 14 Randall's Practical Shepherd, 17 Sale of Valuable Horses, 18 Merino Ram Sweepstakes, 22 The China Sheep, by Geo, Haskell, 23 Treatment of Sheep in Winter, by J. S. Goe, 23 Hale's Improved Sheep Rack, 24 Tumor on a Cow's Face, by H. L. T., 31 Barnyard Lyries—No. 1, 36 HORTICULTURAL DEPARTMENT. Planting Apple Orchards, 13 The Best Grapes for the North, by C. S. L., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Culture of the Quince, by W. E. C., 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Manuring Grapevines, by S. E. Toddo, 26 Pruning and Training Grapevines, by F. K. Phænix, 28 Window Gardening in Denmark, 29 RURAL ARCHITECTURE. Construction of Cheap Ice Houses, 31 Poultry House, by Chas. E. Sands, 25 THE DAIRY DEPARTMENT. Two Good Milkers, by L. S. Robinson, 11 Stanchions for Cows, by L. F. Scott, 30 Abortion in Cowes, by L. F. Scott, 30 Abortion in Cowes, by L. F. Scott, 30 Abortion in Cowes, by L. F. Scott, 30 Abortion in Cows, by L. F. Scott, 30 THE POULTRY YARD. Poultry Keeping and Raising, by C. E. Sands, 25 THE BEE-KEEPER'S DEPARTMENT. Overstocking with Bees, by E. L. Holden, 13 Experiments on Non-Swarming—Size of Bee-Hives, by Elihu Kirby, 30 BELIHU KIRBY, 30 DOMESTIC ECONOMY. Cement for Stopping Leaks, 17 How to Make Cider Vinegar, by W. E. C., 22 Preparation of Chiccory for Use, 27 Filling Ice Houses, 31 Water Proof Boots and Shoes, 31 Water Proof Boots and Shoes, 31 HLLUSTRATIONS.	Indian Corn as a Folder Crop by Ww. I. Proving	94
A Sample of New-Jersey Farming, 35 Inquiries and Answers, 35 THE GRAZIER AND BREEDER. A Cheap and Convenient Feeding Rack, by Jas. Thompson, 13 Value of the China Sheep, 14 Randall's Practical Shepherd, 17 Sale of Valuable Horses, 18 Merino Ram Sweepstakes, 22 The China Sheep, by Geo, Haskell, 23 Treatment of Sheep in Winter, by J. S. Goe, 23 Hale's Improved Sheep Rack, 24 Tumor on a Cow's Face, by H. L. T., 31 Barnyard Lyries—No. 1, 36 HORTICULTURAL DEPARTMENT. Planting Apple Orchards, 13 The Best Grapes for the North, by C. S. L., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Culture of the Quince, by W. E. C., 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Manuring Grapevines, by S. E. Toddo, 26 Pruning and Training Grapevines, by F. K. Phænix, 28 Window Gardening in Denmark, 29 RURAL ARCHITECTURE. Construction of Cheap Ice Houses, 31 Poultry House, by Chas. E. Sands, 25 THE DAIRY DEPARTMENT. Two Good Milkers, by L. S. Robinson, 11 Stanchions for Cows, by L. F. Scott, 30 Abortion in Cowes, by L. F. Scott, 30 Abortion in Cowes, by L. F. Scott, 30 Abortion in Cowes, by L. F. Scott, 30 Abortion in Cows, by L. F. Scott, 30 THE POULTRY YARD. Poultry Keeping and Raising, by C. E. Sands, 25 THE BEE-KEEPER'S DEPARTMENT. Overstocking with Bees, by E. L. Holden, 13 Experiments on Non-Swarming—Size of Bee-Hives, by Elihu Kirby, 30 BELIHU KIRBY, 30 DOMESTIC ECONOMY. Cement for Stopping Leaks, 17 How to Make Cider Vinegar, by W. E. C., 22 Preparation of Chiccory for Use, 27 Filling Ice Houses, 31 Water Proof Boots and Shoes, 31 Water Proof Boots and Shoes, 31 HLLUSTRATIONS.	A Good Way to Cure Reans by E. R. Towle.	34
Inquiries and Answers. THE GRAZIER AND BREEDER. A Cheap and Convenient Feeding Rack, by Jas. Thompson, 13 Value of the China Sheep. 14 Management of Sheep in the Winter, by Baker, Jr., 14 Randall's Practical Shepherd, 17 Sale of Valuable Horses. 18 Merino Ram Sweepstakes, 22 The China Sheep, by Geo, Haskell. 23 Treatment of Sheep in Winter, by J. S. Goe, 23 Hale's Improved Sheep Rack. 24 Tamor on a Cow's Face, by H. L. T., 31 Barnyard Lyrics—No. 1, 36 HORTICULTURAL DEPARTMENT. Planting Apple Orchards. 13 The Best Grapes for the North, by C. S. L., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Culture of the Quince, by W. E. C., 19 Culture of the Quince, by W. E. C., 19 Culture of the Quince, by W. S. E. Todd. Pruning Grapevines, by S. E. Todd. Pruning and Training Grapevines, by F. K. Phænix, 28 Window Gardening in Denmark, 29 RURAL ARCHITECTURE. Construction of Cheap Ice Houses, 31 Poultry House, by Chas. E. Sands, 25 THE DAIRY DEPARTMENT. Two Good Milkers, by L. S. ROBINSON, 11 Stanchions for Cows, by L. F. Scott, 30 Abortion in Cows, by E. L. Holden, 13 Experiments on Non-Swarming—Size of Bee-Hives, by ELHIU KIRBY, 19 DOMESTIC ECONOMY. Cement for Stopping Leaks, 17 How to Make Cider Vinegar, by W. E. C., 22 Preparation of Chiccory for Use, 27 Filling Ice Houses, 31 Water Proof Boots and Shoes, 31 HLUSTRATIONS.	A Sample of New-Jersey Farming,	35
A Cheap and Convenient Feeding Rack, by Jas. Thompson, 13 Value of the China Sheep, 14 Management of Sheep in the Winter, by Baker, Jr., 14 Randall's Practical Shepherd, 17 Sale of Valuable Horses, 18 Merino Ram Sweepstakes, 22 The China Sheep, by Geo, Haskell, 23 Treatment of Sheep in Winter, by J. S. Goe, 23 Treatment of Sheep in Winter, by J. S. Goe, 23 Treatment of Sheep Rack, 24 Tamor on a Cow's Face, by H. L. T., 31 Barnyard Lyrics—No. 1, 36 HORTICULTURAL DEPARTMENT. Planting Apple Orchards, 13 The Best Grapes for the North, by C. S. L., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Manuring Grapevines, by S. E. Toddo, 26 Window Gardening in Denmark, 29 Window Gardening in Denmark, 29 RURAL ARCHITECTURE. Construction of Cheap Ice Houses, 31 Poultry House, by Chas. E. Sands, 25 THE DAIRY DEPARTMENT. Two Good Milkers, by L. S. Robinson, 11 Stanchions for Cows, by L. F. Scott, 14 Dairying in Oswego Co., by Hiram Walker, 19 Two Extra Milkers, by W. W. Chenery, 30 Abortion in Cows, by L. F. Scott, 30 Abortion in Cows, by L. F. Scott, 30 THE POULTRY YARD. Poultry Keeping and Raising, by C. E. Sands, 25 THE BEE-KEEPER'S DEPARTMENT. Overstocking with Bees, by E. L. HOLDEN, 13 Experiments on Non-Swarming—Size of Bee-Hives, by Elihu Kirby, 30 Experiments on Non-Swarming—Size of Bee-Hives, by Elihu Kirby, 30 Experiments on Non-Swarming—Size of Bee-Hives, by Elihu Kirby, 30 POMESTIC ECONOMY. Cement for Stopping Leaks, 17 How to Make Cider Vinegar, by W. E. C., 22 Preparation of Chiccory for Use, 27 Filling Ice Houses, 31 Water Proof Boots and Shoes, 31 HLUSTRATIONS.	Inquiries and Answers,	35
A Cheap and Convenient Feeding Rack, by Jas. Thompson, 13 Value of the China Sheep, 14 Management of Sheep in the Winter, by Baker, Jr., 14 Randall's Practical Shepherd, 17 Sale of Valuable Horses, 18 Merino Ram Sweepstakes, 22 The China Sheep, by Geo, Haskell, 23 Treatment of Sheep in Winter, by J. S. Goe, 23 Treatment of Sheep in Winter, by J. S. Goe, 23 Treatment of Sheep Rack, 24 Tamor on a Cow's Face, by H. L. T., 31 Barnyard Lyrics—No. 1, 36 HORTICULTURAL DEPARTMENT. Planting Apple Orchards, 13 The Best Grapes for the North, by C. S. L., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Manuring Grapevines, by S. E. Toddo, 26 Window Gardening in Denmark, 29 Window Gardening in Denmark, 29 RURAL ARCHITECTURE. Construction of Cheap Ice Houses, 31 Poultry House, by Chas. E. Sands, 25 THE DAIRY DEPARTMENT. Two Good Milkers, by L. S. Robinson, 11 Stanchions for Cows, by L. F. Scott, 14 Dairying in Oswego Co., by Hiram Walker, 19 Two Extra Milkers, by W. W. Chenery, 30 Abortion in Cows, by L. F. Scott, 30 Abortion in Cows, by L. F. Scott, 30 THE POULTRY YARD. Poultry Keeping and Raising, by C. E. Sands, 25 THE BEE-KEEPER'S DEPARTMENT. Overstocking with Bees, by E. L. HOLDEN, 13 Experiments on Non-Swarming—Size of Bee-Hives, by Elihu Kirby, 30 Experiments on Non-Swarming—Size of Bee-Hives, by Elihu Kirby, 30 Experiments on Non-Swarming—Size of Bee-Hives, by Elihu Kirby, 30 POMESTIC ECONOMY. Cement for Stopping Leaks, 17 How to Make Cider Vinegar, by W. E. C., 22 Preparation of Chiccory for Use, 27 Filling Ice Houses, 31 Water Proof Boots and Shoes, 31 HLUSTRATIONS.	THE GRAZIER AND BREEDER.	
Value of the China Sheep. 14 Management of Sheep in the Winter, by Baker, Jr. 14 Randall's Practical Shepherd. 17 Sale of Valuable Horses. 18 Merino Ram Sweepstakes, 22 The China Sheep, by Geo, Haskell. 23 Treatment of Sheep in Winter, by J. S. Goe. 23 Hale's Improved Sheep Rack. 24 Tumor on a Cow's Face, by H. L. T. 31 Barnyard Lyrics—No. 1, 36 HORTICULTURAL DEPARTMENT. 18 Planting Apple Orchards. 13 The Best Grapes for the North, by C. S. L. 19 Proper Distance Apart of Apple Trees, by W. E. C. 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Manuring Grapevines, by S. E. Todd. 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines, by F. K. Phænix. 28 Window Gardening in Denmark. 29 Pruning and Training Grapevines, by S. E. Todd. 20 Pruning and Training Grapevines, by F. K. Phænix. 28 Window Gardening in Denmark. 29 RURAL ARCHITECTURE. 20 Construction of Cheap Ice Houses, 31 <td>A Cheap and Convenient Feeding Rack, by Jas. Thompson,</td> <td>13</td>	A Cheap and Convenient Feeding Rack, by Jas. Thompson,	13
Randall's Practical Shepherd, 17 Sale of Valuable Horses, 18 Merino Ram Sweepstakes, 22 The China Sheep, by Geo, HASKELL, 23 Treatment of Sheep in Winter, by J. S. Goe, 23 Hale's Improved Sheep Rack, 24 Tumor on a Cow's Face, by H. L. T., 31 Barnyard Lyrics—No. 1, 36 HORTICULTURAL DEPARTMENT. Planting Apple Orchards. 13 The Best Grapes for the North, by C. S. L., 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Culture of the Quince, by W. E. C., 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Manuring Grapevines, by S. E. Todd, 28 Window Gardening in Denmark, 29 RURAL ARCHITECTURE. Construction of Cheap Ice Houses, 31 Poultry House, by Chas. E. Sands, 25 THE DAIRY DEPARTMENT. Two Good Milkers, by L. S. Robinson, 11 Stanchions for Cows, by L. F. Scott, 14 Dairying in Oswego Co., by Hiram Walker, 19 Two Extra Milkers, by W. W. Chenery, 30 Abortion in Cows, by L. F. Scott, 30 THE POULTRY YARD. Poultry Keeping and Raising, by C. E. Sands, 25 THE BEE-KEEPER'S DEPARTMENT. Overstocking with Bees, by E. L. HOLDEN, 13 Experiments on Non-Swarming—Size of Bee-Hives, by ELHU KIRBY, 29 Poomestic Economy. Cement for Stopping Leaks, 17 How to Make Cider Vinegar, by W. E. C., 22 Preparation of Chiccory for Use, 27 Filling Ice Houses, 31 Water Proof Boots and Shoes, 34 HLLUSTRATIONS.	Value of the China Sheep,	14
Sale of Valuable Horses, 18	Management of Sheep in the Winter, by BAKER, JR.,	14
Merino Ram Sweepstakes, 22 The China Sheep, by Geo, Haskell. 23 Treatment of Sheep in Winter, by J. S. Goz. 23 Hale's Improved Sheep Rack. 24 Tumor on a Cow's Face, by H. L. T. 31 Barnyard Lyrics—No. 1, 36 HORTICULTURAL DEPARTMENT. Planting Apple Orchards. 13 The Best Grapes for the North, by C. S. L. 19 Proper Distance Apart of Apple Trees, by W. E. C. 19 Culture of the Quince, by W. E. C. 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Malanting Grapevines, by S. E. Toddo, 19 Pruning and Training Grapevines, by F. K. Phænix, 28 Window Gardening in Denmark, 29 RURAL ARCHITECTURE. Construction of Cheap Ice Houses, 31 Poultry House, by Chas. E. Sands, 25 THE DAIRY DEPARTMENT. Two Good Milkers, by L. S. Robinson, 11 Stanchions for Cows, by L. F. Scott, 14 Dairying in Oswego Co., by Hirbam Walker, 19 Two Extra Milkers, by W. W. Chenery, 30 Aborti	Randall's Practical Shepherd,	17
Hale's Improved Sheep Rack,	Merino Ram Sweenstakes	22
Hale's Improved Sheep Rack,	The China Sheep, by GEO, HASKELL,	23
Hale's Improved Sheep Rack,	Treatment of Sheep in Winter, by J. S. Goz,	23
Barnyard Lyrics—No. 1, 36 HORTICULTURAL DEPARTMENT. Planting Apple Orchards, 13 The Best Grapes for the North, by C. S. L. 19 Proper Distance Apart of Apple Trees, by W. E. C., 19 Cultivation of Grapes and Vineyards—The Best Kind of Grapes—Laying Down Grapevines in Winter—Manuring Grapevines, by S. E. Toddo, North and Training Grapevines, by F. K. Phænix, 28 Window Gardening in Denmark, 29 RURAL ARCHITECTURE. Construction of Cheap Ice Houses, 31 Poultry House, by Chas. E. Sands, 25 THE DAIRY DEPARTMENT. Two Good Milkers, by L. S. Robinson, 11 Stanchions for Cows, by L. F. Scott, 14 Dairying in Oswego Co., by Hiram Walker, 19 Two Extra Milkers, by W. W. Chenery, 30 Abortion in Cows, by L. F. Scott, 30 THE POULTRY YARD. Poultry Keeping and Raising, by C. E. Sands, 25 THE BEE-KEEPER'S DEPARTMENT. Overstocking with Bees, by E. L. HOLDEN, 13 Experiments on Non-Swarming—Size of Bee-Hives, by ELHU KIRBY, 30 DOMESTIC ECONOMY. Cement for Stopping Leaks, 17 How to Make Cider Vinegar, by W. E. C., 22 Preparation of Chiccory for Use, 27 Filling Ice Houses, 31 Water Proof Boots and Shoes, 34 HLLUSTRATIONS.	Hale's Improved Sheep Rack,	24
HORTICULTURAL DEPARTMENT. 13	Reserved Lyrica No. 1	36
Planting Apple Orchards		30
Pruning and Training Grapevines, by F. K. Phœnix, 28 Window Gardening in Denmark, 29 RURAL ARCHITECTURE.	Morticultural DEPARTMENT.	40
Pruning and Training Grapevines, by F. K. Phœnix, 28 Window Gardening in Denmark, 29 RURAL ARCHITECTURE.	The Rest Granes for the North by C. S. L.	10
Pruning and Training Grapevines, by F. K. Phœnix, 28 Window Gardening in Denmark, 29 RURAL ARCHITECTURE.	Proper Distance Apart of Apple Trees, by W. E. C.	19
Pruning and Training Grapevines, by F. K. Phœnix, 28 Window Gardening in Denmark, 29 RURAL ARCHITECTURE.	Culture of the Quince, by W. E. C.,	19
Pruning and Training Grapevines, by F. K. Phœnix, 28 Window Gardening in Denmark, 29 RURAL ARCHITECTURE.	Cultivation of Grapes and Vineyards—The Best Kind of	
Pruning and Training Grapevines, by F. K. Phœnix, 28 Window Gardening in Denmark, 29 RURAL ARCHITECTURE.	Grapes—Laying Down Grapevines in Winter—Ma-	26
RURAL ARCHITECTURE. 29 RURAL ARCHITECTURE. 31 Poultry House, by Chas. E. Sands, 25 THE DAIRY DEPARTMENT. 25 THE DAIRY DEPARTMENT. 25 THE DAIRY DEPARTMENT. 26 THE DAIRY DEPARTMENT. 27 Two Good Milkers, by L. S. Robinson, 11 Stanchions for Cows, by L. F. Scott, 14 Dairying in Oswego Co., by Hiram Walker, 19 Two Extra Milkers, by W. W. Chenery, 30 Abortion in Cows, by L. F. Scott, 30 THE POULTRY YARD. 25 THE BEE-KEEPER'S DEPARTMENT. 25 THE BEE-KEEPER'S DEPARTMENT. 30 Experiments on Non-Swarming—Size of Bee-Hives, by 30 ELIHU KIRBY, 30 DOMESTIC ECONOMY. 30 The William of Chiccory for Use, 27 The Houses, 31 The Houses, 31 The Houses, 31 Water Proof Boots and Shoes, 34 THE HOUSTRATIONS. 31 THE HOUSTRATIONS. 31 THE HOUSTRATIONS. 31 THE HOUSTRATIONS. 32 THE HOUSTRATIONS. 34 THE HOUSTRATIONS. 31 THE HOUSTRATIONS. 32 THE HOUSTRATIONS. 34 THE HOUSTRATIONS. 34 THE HOUSTRATIONS. 34 THE HOUSTRATIONS. 35 THE HOUSTRATIONS. 34 THE HOUSTRATIONS. 35 THE HOUSTRATIONS. 36 THE HOUSTRATIONS. 37 THE HOUSTRATIONS. 38 THE HOUSTRATIONS. 37 THE HOUSTRATIONS. 38 THE H	Printing and Training Granevines, by F. K. PHENIX	
RURAL ARCHITECTURE. Construction of Cheap Ice Houses,	Window Gardening in Denmark.	
Construction of Cheap Ice Houses, 31 Poultry House, by Chas. E. Sands, 25 **THE DAIRY DEPARTMENT.** Two Good Milkers, by L. S. Robinson, 11 Stanchions for Cows, by L. F. Scott, 14 Dairying in Oswego Co., by Hiram Walker, 19 Two Extra Milkers, by W. W. Chenery, 30 Abortion in Cows, by L. F. Scott, 30 **THE POULTRY YARD.** Poultry Keeping and Raising, by C. E. Sands, 25 **THE BEE-KEEPER'S DEPARTMENT.** Overstocking with Bees, by E. L. Holden, 13 Experiments on Non-Swarming—Size of Bee-Hives, by Elihu Kirby, 30 **DOMESTIC ECONOMY.** Cement for Stopping Leaks, 17 How to Make Cider Vinegar, by W. E. C., 22 Preparation of Chiccory for Use, 27 Filling Ice Houses, 31 Water Proof Boots and Shoes, 34 **HLUSTRATIONS.**	RURAL ARCHITECTURE.	
THE DAIRY DEPARTMENT. 11	Construction of Cheap Ice Houses.	31
Two Good Milkers, by L. S. ROBINSON, 11 Stanchions for Cows, by L. F. SCOTT, 14 Dairying in Oswego Co., by Hiram Walker, 19 Two Extra Milkers, by W. W. Chenery, 30 Abortion in Cows, by L. F. SCOTT, 30 THE POULTRY YARD. Poultry Keeping and Raising, by C. E. SANDS, 25 THE BEE-KEEPER'S DEPARTMENT. Overstocking with Bees, by E. L. Holden, 13 Experiments on Non-Swarming—Size of Bee-Hives, by 20 ELIHU KIRBY, 30 DOMESTIC ECONOMY. Cement for Stopping Leaks, 17 How to Make Cider Vinegar, by W. E. C., 22 Preparation of Chiccory for Use, 27 Filling Ice Houses, 31 Water Proof Boots and Shoes, 34 ILLUSTRATIONS.	Poultry House, by Chas. E. Sands,	
Two Good Milkers, by L. S. ROBINSON, 11 Stanchions for Cows, by L. F. SCOTT, 14 Dairying in Oswego Co., by Hiram Walker, 19 Two Extra Milkers, by W. W. Chenery, 30 Abortion in Cows, by L. F. SCOTT, 30 THE POULTRY YARD. Poultry Keeping and Raising, by C. E. SANDS, 25 THE BEE-KEEPER'S DEPARTMENT. Overstocking with Bees, by E. L. Holden, 13 Experiments on Non-Swarming—Size of Bee-Hives, by 30 ELIHU KIRBY, 30 DOMESTIC ECONOMY. Cement for Stopping Leaks, 17 How to Make Cider Vinegar, by W. E. C., 22 Preparation of Chiccory for Use, 27 Filling Ice Houses, 31 Water Proof Boots and Shoes, 34 ILLUSTRATIONS.	THE DAIRY DEPARTMENT.	
Stanchions for Cows, by L. F. Scott,		11
Dairying in Oswego Co., by Hiram Walker, 19 Two Extra Milkers, by W. W. Chenery, 30 Abortion in Cows, by L. F. Scott, 30 THE POULTRY YARD. Poultry Keeping and Raising, by C. E. Sands, 25 THE BEE-KEEPER'S DEPARTMENT. Overstocking with Bees, by E. L. HOLDEN, 13 Experiments on Non-Swarming—Size of Bee-Hives, by ELIHU KIRBY, 30 DOMESTIC ECONOMY. Cement for Stopping Leaks, 17 How to Make Cider Vinegar, by W. E. C., 22 Preparation of Chiccory for Use, 27 Filling Ice Houses, 31 Water Proof Boots and Shoes, 34 HLUSTRATIONS.	Stanchions for Cows, by L. F. Scott.	14
THE POULTRY YARD. 25	Dairying in Oswego Co., by HIRAM WALKER,	19
THE POULTRY YARD. 25	Two Extra Milkers, by W. W. CHENERY,	30
Poultry Keeping and Raising, by C. E. Sands,		30
THE BEE-KEEPER'S DEPARTMENT. Overstocking with Bees, by E. L. HOLDEN, 13 Experiments on Non-Swarming—Size of Bee-Hives, by 30 ELIHU KIRBY, 30 DOMESTIC ECONOMY. Cement for Stopping Leaks. 17 How to Make Cider Vinegar, by W. E. C., 22 Preparation of Chiccory for Use, 27 Filling Ice Houses, 31 Water Proof Boots and Shoes, 34 ILLUSTRATIONS.		
13		25
Cement for Stopping Leaks. 17 How to Make Cider Vinegar, by W. E. C., 22 Preparation of Chiccory for Use, 27 Filling Ice Houses, 31 Water Proof Boots and Shoes, 34	THE BEE-KEEPER'S DEPARTMENT.	
Cement for Stopping Leaks. 17 How to Make Cider Vinegar, by W. E. C., 22 Preparation of Chiccory for Use, 27 Filling Ice Houses, 31 Water Proof Boots and Shoes, 34	Overstocking with Bees, by E. L. HOLDEN,	13
DOMESTIC ECONOMY. 17	Experiments on Non-Swarming—Size of Bee-Hives, by	30
Cement for Stopping Leaks, 17 How to Make Cider Vinegar, by W. E. C., 22 Preparation of Chiccory for Use, 27 Filling Ice Houses, 31 Water Proof Boots and Shoes, 34 ILLUSTRATIONS.		
Preparation of Chiccory for Use, 27 Filling Ice Houses, 31 Water Proof Boots and Shoes, 34 ILLUSTRATIONS.	Coment for Stonning Looks	
Preparation of Chiccory for Use, 27 Filling Ice Houses, 31 Water Proof Boots and Shoes, 34 ILLUSTRATIONS.	How to Make Cider Vincour by W. E. C.	17
Filling Ice Houses,	Preparation of Chiccory for Use.	27
Water Proof Boots and Shoes,	Filling Ice Houses,	31
Merino Ram Sweepstakes, 22 Poultry House, 25 Improved Sheep Rack, 24 Ice Houses, 31 Gregory's Horse Fork, 38 Pruning Grapevines, 28		
Improved Sheep Rack, 24 Ice Houses,	Merino Ram Sweepstakes, 22 Poultry House,	25
Gregory's morse Fork, 35 Fruning Grapevines, 28	Improved Sheep Rack, 24 Ice Houses,	31
	Gregory's Horse Fork, 35 Pruning Grapevines,	28

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